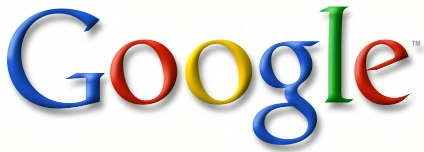
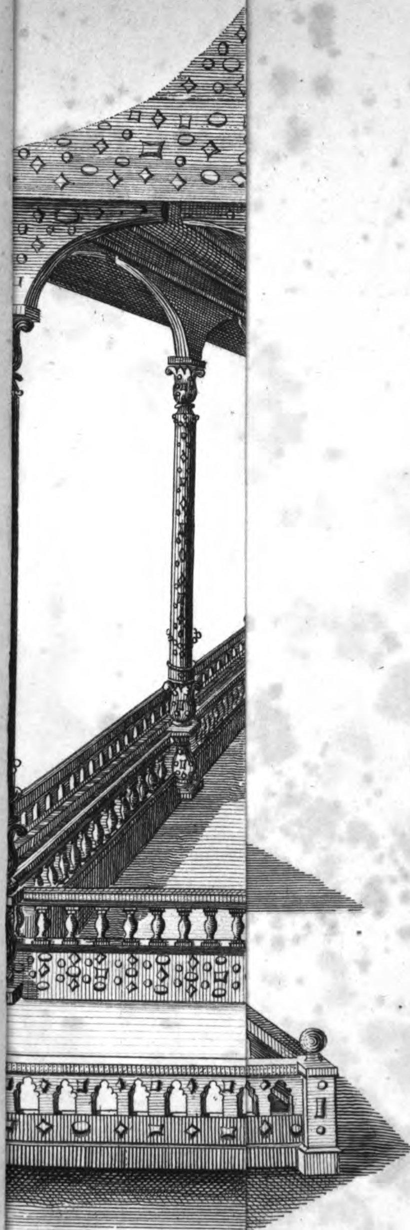



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INDIAN ANTIQUITIES:

OR,

DISSERTATIONS

RELATIVE TO

THE ANCIENT GEOGRAPHICAL DIVISIONS,
THE PURE SYSTEM OF PRIMEVAL THEOLOGY,
THE GRAND CODE OF CIVIL LAWS,
THE ORIGINAL FORM OF GOVERNMENT,
THE WIDELY-EXTENDED COMMERCE, AND
THE VARIOUS AND PROFOUND LITERATURE,

OF

HINDOSTAN:

COMPARED, THROUGHOUT, WITH THE
RELIGION, LAWS, GOVERNMENT, AND LITERATURE,

OF

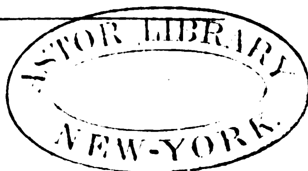
PERSIA, EGYPT, AND GREECE.

THE WHOLE INTENDED AS INTRODUCTORY TO, AND
ILLUSTRATIVE OF

THE HISTORY OF HINDOSTAN,

UPON A COMPREHENSIVE SCALE.

VOL VII. AND FINAL.



LONDON:

PRINTED, FOR THE AUTHOR, BY W. BULMER AND CO.
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AND SOLD BY J. WHITE, FLEET-STREET.

1806.

ADVERTISEMENT.

The frontispiece of this volume, exhibiting the famous peacock-throne of the Mogul emperors of India, the subjoined account of that throne by the Baron Tavernier, who saw it about the close of the 17th century, will probably prove acceptable to the reader. He speaks of one peacock only, but two appear in this print, which was drawn, at Delhi, by an European artist in the train of Nadir Shah, who, on the plunder of that city in 1739, broke it to pieces, and carried the jewels that composed it into Persia, whence they have been scattered through Asia and Europe.

"The great Mogul has seven thrones, some set all over with diamonds; others with rubies, emeralds, and pearls. But the largest throne is erected in the hall of the first court of the

palace; it is, in form, like one of our field-beds, six feet long and four broad. I counted about a hundred and eight pale rubies in collets about that throne, the least whereof weighed a hundred carats, but there are some that weighed two hundred. Emeralds I counted about a hundred and forty, that weighed some threescore, some thirty, carats.

"The under part of the canopy is entirely embroidered with pearls and diamonds, with a fringe of pearls round the edge. Upon the top of the canopy, which is made like an arch with four panes, stands a peacock, with his tail spread, consisting entirely of sapphires and other proper coloured stones: the body is of beaten gold, enchased with numerous jewels; and a great ruby adorns his breast, to which hangs a pearl that weighs fifty carats. On each side of the peacock stand two nosegays, as high as the bird, consisting of various sorts of flowers, all of beaten gold enamelled. When the king seats himself upon the throne, there is a transparent jewel, with a diamond appendant of eighty or ninety carats weight, encompassed with rubies and emeralds, so suspended that it is always in his eye. The twelve pillars also,

that uphold the canopy, are set round with rows of fair pearl and of an excellent water, that weigh from six to ten carats a piece. At the distance of four feet, upon each side of the throne, are placed two umbrellas, the handles of which are about five feet high, covered with diamonds; the umbrellas themselves, being of crimson velvet, embroidered and fringed with pearl. This is the famous throne which Timur began and Shah Jehaun finished, and is really reported to have cost a hundred and sixty millions and five hundred thousand livres of our money."*

* Tavernier's Indian Travels, tom. iii. p. 331, edit. 1713.

Directions to the Binder:

The Peacock Throne—frontispiece.
The planet Sani—to face p. 132.

A
DISSERTATION

ON THE QUANTITY OF

BULLION AND COINED MONEY

IN THE ANCIENT WORLD;

COMPRISING

A SHORT HISTORY OF THE GOLD AND SILVER MINES OF ASIA,

AND A SURVEY OF

THE IMMENSE TREASURES POSSESSED BY THE ANCIENT SOVEREIGNS OF INDIA.

A
DISSERTATION, &c.

SECTION I.

HAVILAH, *the Land of Gold,—the ancient Mines of* ARABIA *and* ETHIOPIA,—*the Treasures in Bullion of the ancient* EGYPTIAN *Sovereigns,—the golden* SOFALA, *the Source of the Wealth of the* TYRIANS *and* SOLOMON,—*the former, however, had another abundant Source in the Mines of* SPAIN, *the* PERU *and* POTOSI *of Antiquity.—A Description, from the Prophet* EZEKIEL, *of the Magnificence of ancient Tyre.—The Sources of the Wealth of the* ASSYRIAN *or* BABYLONIAN *Empire investigated, and that Wealth exemplified in the Ornaments of the Temple of* BELUS *and the* DEA SYRIA.—*Brief Strictures on coined Money and the* DARICS *struck at* BABYLON.—*The Empire of* ASIA, *and the Current of Wealth which constantly followed it, transferred, by* CYRUS, *from* BABYLON *to* SUSA.—*The immense Wealth in Bullion and coined Money of the ancient* PERSIANS,—

its principal Sources, its own Mines in CARMANIA, *the mines of* LYDIA *and* THRACE,—*and the vast internal Commerce carried on with* INDIA.—*The Whole fell a Prey to* ALEXANDER *on his Conquest of Persia, and to his Captains after his Decease.—The silver Mines of* ATTICA, *and the accumulated Treasures preserved in the* GRECIAN *Temples, considered.—Those Temples, the public Banks of* GREECE, *and the Priests the Bankers.—A Survey is now taken of the Wealth of ancient* INDIA,—*the great central Deposit, for many Centuries, of the Bullion both of the Eastern and Western World,—that Bullion principally melted down and formed into Statues of the numerous superior and subordinate Deities of* INDIA, *as well as to fabricate the splendid Utensils of their Temples.— An Account of the Treasures of that Kind found in those Temples by Sultan* MAHMUD, *of* GAZNA, *and other Invaders of* HINDOSTAN.—*The Author returns from* HINDOSTAN *to the Consideration of the Wealth obtained by* ALEXANDER, *and its Dispersion by his Successors, the* PTOLEMIES *of* EGYPT, *the* SELEUCIDÆ *of* SYRIA, *and the* MACEDONIAN *Sovereigns.—The whole Wealth of* ASIA *centred finally among the* ROMANS.—*A considerable Part dissipated by their profligacy; a still more considerable Portion fell to the lot of the Goths,*

Vandals, and other barbarous Nations who plundered ROME; *but, by far the most considerable Portion was buried, during the Times of Tyranny and Turbulence, in that Earth from which it originally came.*

To form any adequate idea of the wealth of the ancient world in gold and silver *bullion*, we must turn our eyes to the countries in which mines were first discovered and wrought. Now the region, most early mentioned in history, sacred and profane, as producing gold, is HAVILAH, in the Pentateuch of Moses, and the gold which it produced is said to have been remarkable for its purity. Havilah, which the river Pison watered, is, by the best commentators, asserted to be Arabia; and accordingly we read both in Agatharchides and Strabo, that Arabia anciently abounded in gold in so extraordinary a manner, that its inhabitants would give double the weight of that valuable metal for iron, treble its weight for brass, and ten times its weight for silver.* We are informed by those authors that, in digging the earth in the southern parts of Arabia, they found pieces of gold that needed not the refiner's fire, sometimes as big as olive-stones, and, at others, as big as walnuts;

* Vide Agatharchides Cnid. apud Photium, p. 1370, et etiam Strabonis Geograph. lib. xvi. p. 583.

and that, in particular, through the country of the Deliæ, ran a stream, in whose sands were intermixed pieces of gold of considerable magnitude, while the sand at its mouth appeared as one shining solid mass entirely composed of it, and that the furniture and utensils of their houses, their cups and vessels, were made of it. On this account, as well as its producing such quantites of myrrh, cassia, frankincense, and all the finest drugs and perfumes, that part of Arabia obtained the name of Felix.

Although a considerable portion of this relation may have truth for its basis, yet the greater part is probably exaggerated; for the immemorial trade of the Arabians to the coast of Africa was, doubtless, one source of their thus abounding in those precious metals, which are the chief object of traffic. Of their early engagement in commercial concerns, no stronger testimony need be brought than that which Scripture itself affords; for it was to a caravan of Ishmaelitish (that is, Arabian) merchants, going down to Egypt with spices and balm, that the patriarch Joseph was sold. To Africa, therefore, and particularly to the Ethiopians, we must next direct our course, as a principal and unfailing source of the riches of the ancient world; for, in truth, every province of that vast empire abounded in mines: gold was borne down by torrents from

the mountains, and flowed in the streams of the valley; the Ethiopians anciently had such plenty of it that, to shew their contempt for what excited the envy and admiration of the whole world beside, they are said to have manacled their prisoners taken in war with golden fetters.

There is a curious account given in Diodorus Siculus of the mode after which the Eyptians worked and refined the metal obtained from the mines in the Thebais; for the Lower Egypt, as we before observed, was entirely destitute of mines. They commenced the operation by pounding the ore, and reducing it to grains of the size of millet. It was then reduced to powder under millstones of great weight. The gold-dust, thus finely ground, was spread, as in the process used in respect to the tin ore, detailed above, over a floor of boards, somewhat inclined, and well washed with water, which ran off from the sloping declivity, bearing with it the grosser terrestrial particles that had adhered to it. This washing was several times repeated; and the ore, after having been well rubbed between the hands of the workmen, and thoroughly cleaned by sponges from all remaining filth, was consigned over to those whose business it was to smelt it. These artists deposited the gold dust in earthen vases, mixing

with it, in certain proportions, LEAD, salt, TIN and barley-meal; and these, being closely covered and luted, were placed for five days and nights in a strong refining-furnace. When that period was elapsed, and the metal cooled, they opened the vessels; and examining the gold, found it perfectly pure, and very little diminished in quantity.* This process, of separating and refining the ore of gold, the ancients inform us, was immemorially practised in Egypt, and, in reality, it does not materially differ from that used at the present day; lead, tin, and the labour of repeated fusion, being substituted by the ancients in the room of the more rapid and easy process of the moderns, by means of mercury. In those early periods, however, when as yet both the necessities and the luxuries of life were fewer, gold was frequently found in a state that needed no refining. Without descending into the dark bosom of the mine, virgin gold was frequently to be met with near the surface, as it was discovered in Peru, and is now found in Achem.

Of the immense quantity of gold possessed by the Egyptians, as well as their elegant manufacture of it, in the very early ages to which we allude, abundant testimony may be brought

* See Diod. Sic. p.184; and Agatharchides apud Photium in loco citato.

from writers, both sacred and profane, and to their combined evidence we shall constantly appeal, when possible, for the truth of our assertions throughout this Dissertation. Diodorous, describing the grand mausoleum of Osymandyas, informs us, that the exact sum of the gold and silver dug from the mines of the Thebais, as inscribed on the walls of that temple, amounted to 3,000,000,000 of minæ, or ninety-six millions of our money; and mentions, in farther proof of the magnificence of that monarch, the stupendous circle of wrought gold, 365 cubits in circumference, the number of the days of the reformed year of Egypt, which surrounded his tomb.* From a still more authentic record, the Pentateuch of Moses, may be adduced, in evidence, the *golden chain* which Pharoah placed around the neck of Joseph, when he raised him to the dignity of cup-bearer; the *exceeding riches in gold and silver* carried by Abraham out of Egypt; the multitude of gold and silver vases, and other valuable trinkets, which the Israelites, though in a state of abject servitude, at their exodus, obtained of their wealthy neighbours; and the bracelets, the earrings, and the clasps of gold, which they afterwards voluntarily offered to Moses for the fabrication of those sumptuous works for the golden

* Diodorus Siculus, lib. i. p. 44.

crown, the table of shew-bread, and the rich chandelier of beaten gold, devoted to the holiest rites of their religion. The greatest mart, however, for this metal on the African coast, was the golden Sofala, which Mr. Bruce has incontestably proved to be the Ophir of Scriptures; and it was probably from those mines that David and Solomon obtained those immense treasures, which animated the former to project, and enabled the latter to complete, the stately Temple of Jerusalem, with all the various golden ornaments used in its public worship. In one voyage only, the ships of Solomon are reported by Josephus to have brought home four hundred and fifty talents of gold; by which the writer meant the talent used at Tyre, most probably current at Jerusalem, and thought by Arbuthnot to be of the same value as that of Attica, amounting to between three and four millions sterling.* If these voyages to Ophir were frequently repeated, there can be but little of hyperbole in that expression which occurs in Scripture, of his making silver to be *at Jerusalem as the stones of the street;* because silver at that time bore a far inferior value to gold than it bears in these days; it being then in the proportion of sixteen to one; whereas, it is now

*Vide Josephi Antiquit. lib vii. and Arbuthnot on Ancient Coins, p. 42.

only as twelve to one. Nor can we wonder at David's having left in his treasury *a hundred thousand talents of gold,* and *a thousand thousand talents of silver.* 1 Chronicles, xxii. though we cannot, in this instance, compute by the Eubœan talent, which in gold, according to the same author, would amount to 547,500,000*l.* and in silver to above 342,000,000*l.* of our money; an enormous and incredible sum, which the treasury of no sovereign or nation on earth ever contained. Dr. Arbuthnot, therefore, judiciously contends that we should calculate by the most ancient Phœnician talent, alluded to by Homer, (and in consequence, called by him *Homeric,*) of value far less considerable. Probably Josephus gives us the true amount of that wealth, when he states the whole at the round sum of 100,000 talents; that is, the Alexandrian talent, most in use at the period of his writing.

Hiero, the Phœnician monarch, we are told, instigated by personal friendship, and his admiration of the consummate wisdom of Solomon, in his favour broke through that jealous reserve which marked all the naval proceedings of that enterprizing nation. He not only assisted the Jewish sovereign with his subjects to build a fleet for the express purpose of commerce, but also to navigate that fleet to the destined

port, to the rich source of that wealth which exalted Tyre to her envied pre-eminence in power and splendor over all the cities of the ancient world. If the satellite was thus bright in riches and in glory, with what surpassing, with what unequalled, lustre must the primary orb have been invested; for, it was not only from the golden Sofala, and the ports of Africa, that she obtained this infinite supply of bullion, but we have shewn that, in the mines of the Pyrenæan mountains, at once the PERU and POTOSI of antiquity, she found an additional and never-failing spring of overflowing treasure. I have already, in the preceding Dissertation, given a very ample account of their abundant produce in the times of the Phœnicians trading thither; but, when they ceased to be so abundantly productive of ore, it is impossible to ascertain. I need only add to that account, that, in the time of Strabo, the Romans kept forty thousand men constantly employed in those mines; and that they produced to them twenty-five thousand drachmas a day.* Full credit, therefore, may be given to the testimonies which the records of all nations bear to the profusion of gold and gems worn by the inhabitants, and displayed in the temples and palaces, of Tyre. Of her astonishing wealth, and the rich species

* Strabo, lib vi. p. 379.

of manufactures in which she dealt, no more impressive evidence from profane authors need be adduced than the splendid donation sent by her to the temple of the Tyrian Hercules at Gades, and mentioned in the preceding pages; the golden belt of Teucer, and the golden olive of Pygmalion, exquisitely wrought, bearing smaragdine fruit; that is, berries of emerald, representing olives in the utmost perfection. This testimony of Apollonius, in Philostratus, who visited the temple of Gades, in the first century of the Christian æra, added to that of Herodotus, previously cited, concerning the dazzling ornaments of her own principal temple, seen by that historian many centuries before, the two lofty pillars of gold and emerald, which illuminated the whole dome by their reflected splendor, are fully confirmed by the decided voice of Scripture itself; not only in respect to their elegant work in gold and ivory in the palaces of Solomon and the temple of Jerusalem, but more particularly and minutely in the following animated apostrophe, which is too intimately connected with many of the subjects discussed in this volume, and exhibits too interesting a detail of the splendor of an ancient commercial metropolis, to be omitted; for in truth, it was the gold of Ophir and the silver of Spain that formed the basis of all her magnificence.

"O Tyre," exclaims the prophet, "thou hast said in thyself, I am a city of perfect beauty. Thy neighbours, who built thee, have forgot nothing to embellish thee. They have made the hull and the diverse stories of thy ships of the fir-trees of Senir. They have taken a cedar from Lebanon, to make thee a mast. They have polished the oaks of Bashan, to make thine oars. They have employed the ivory of the Indies, to make benches for thy rowers; and that which comes from Italy, to make thy chambers. Fine linen, with broidered work from Egypt, was that which thou spreadest forth to be thy sail. Hyacinth and purple, from the isles of Elishah, have made thy flag. The inhabitants of Sidon and Arvad were thy rowers; and thy wise men, O Tyre, became thy pilots. All the ships of the sea, and all their mariners, occupied thy commerce and thy merchandise. The Carthaginians trafficked with thee, and filled thy fairs with silver, with TIN, and LEAD. Javan, Tubal, and Meshech, were also thy merchants, and brought to thy people slaves, and vessels of brass. They of Togormah traded in thy fairs with horses and mules. The Children of Dedan trafficked with thee. Thy commerce extended to many islands, and they gave thee, in exchange for thy merchandises, magnificent carpets, ivory, and ebony. The Syrians were

thy merchants, because of the multitude of thy works: they exposed to sale in thy fairs pearls, and purple, embroidered works of byssus, silk, and all sorts of precious merchandise. The people of Judah and of Israel were also thy merchants, they traded in thy markets pure wheat and balm, honey, oil, and rosin. Damascus, in exchange for thy wares, so varied and so different brought thee great riches, excellent wine, and wool of a lively and shining colour. Dan, Greece, and Mosel, traded in thy markets, iron works, and myrrh, and calamus. Arabia, and the princes of Kedar, were also thy merchants; they brought thee their lambs, and rams, and goats. Shebah and Ramah came also to traffic with thee; they traded in thy markets the most exquisite perfumes, precious stones, and gold. Thine were the most remarkable of all the ships of the sea. Thy rowers conducted thee upon the great waters. Thou hast been loaded with riches and glory: never any city was like thee. Thy commerce enriched the nations, and the kings of the earth."*

It should here be observed, that the prophet Ezekiel, to whom we are indebted for this valuable picture of the grandeur of the Phœnician metropolis, flourished nearly 600 years before Christ, when Tyre was in the zenith of that

* Ezekiel, chap. xxvii. and xxviii.

glory, which shortly after bowed its head before the monarch of Assyria. To Assyria, therefore, and principally to Babylon, the mighty capital of the greatest empire the sun ever beheld, it is now necessary that I should direct the attention of the reader during our farther investiga- of the curious subject before us, the treasures of gold and silver bullion amassed in the ancient world.

Assyria had no gold or silver mines of her own; but, being the central region of that part of Asia in which commerce ever most vigorously flourished, she absorbed, as in a vast vortex, the wealth in this article, in which she so super-eminently abounded. We are astonished, in the infancy of mankind, and in the dawn of science, to find works executed at once so costly and so stupendous. Those fabricated in the precious metals alluded to, alone form the object of our present inquiry; and here, in the great temple of Belus, built by Semiramis, we find three prodigious statues, not of *cast*, for they are expressly said to have been of *beaten*, gold, representing Jupiter, the father of all, Juno the queen of heaven, and Rhea, the universal mother. The statue of Jupiter appeared erect, and in a walking attitude; it was forty feet in height, and weighed a thousand Babylonian talents. The statue of Rhea also weighed the

same number of talents, but was sculptured sitting on a throne of massy gold, with two lions standing before her, as guardians of the statue, accompanied with two huge serpents in silver, that weighed each thirty talents. The statue of Juno was in an erect posture, and weighed eight hundred talents: her right hand grasped a serpent by the head, and her left a golden sceptre, incrusted with gems. Before these three colossal figures stood an altar of beaten gold, forty feet in length, fifteen in breadth, and of the weight of five hundred talents. On this altar stood two vast flagons weighing each thirty talents; two censers for incense, probably kept continually burning, each weighing five hundred talents; and, finally, three vessels for the consecrated wine, of which the largest, that assigned to Jupiter, weighed three hundred talents, and those to Juno and Rhea six hundred talents.* Such is the relation given by Diodorus of the ornamental decorations of this superb fane, and, though borrowed from Ctesias, may probably be, for the most part, true. It certainly is in unison with the magnificent taste of the times, and might easily have been accomplished by the immense sums that flowed, in a golden inundation, into that capital from Arabia and all the adjoining provinces subject to the crown of Assyria.

* Vide Diod. Sic. lib. ii. p. 98.

If this relation, however, should appear wholly incredible, let us appeal to the authority of Holy Writ for an account of the exhibition of Assyrian wealth, scarcely less surprising; and this display we find in the colossal image of gold which Nebuchadnezzar, after the plunder of Jerusalem, and probably from the superb spoils of its temple and royal palace, erected to his god Belus, that is, *the Sun*, whose ray matures the growing ore, the SUN equally adored with similar rites and by the same appellation, in ancient Britain and ancient Babylon, in the extensive plain of Dura. This statue, to form which was so basely prostituted the enormous aggregate of wealth heaped up by David and Solomon for a nobler purpose, and a far more refulgent deity, was sixty cubits in height, which therefore vastly exceeds that erected to Jupiter Belus by Semiramis, sixty cubits being nearly equal to ninety feet; it was also six cubits in breadth; and the whole was of beaten gold. Now Dr. Prideaux computes the weight in gold of the former statue, viz. one thousand talents, to be equal to three millions and a half sterling, and the value of that of Nebuchadnezzar rises consequently in proportion to its additional height.* That author, fearful of the apparent exaggeration, would allow only forty cubits to the statue, and twenty for the pedestal;

* Prideaux's Connections, vol. i. p. 100.

but this is contrary to the express words of Scripture; and the dimensions will not appear incredible to those who consider that this colossus was probably intended as an exhibition of the hoarded wealth of the treasury of Babylon, and consisted of the golden spoils of Egypt, Syria, and Palestine, recently subdued by this powerful and ostentatious monarch. The whole or, at least, far the greater part, of this wealth, afterwards, at the conquest of Babylon by Cyrus, fell into the hands of the Persian sovereigns, who, transferring the seat of empire and its accumulated treasures to Susa, invite our steps to the new metropolis.

Although, as has been before observed, there are at present no mines of gold or silver open in Persia, there are, according to Chardin, evident remains of those that have been wrought in ancient times, and were either exhausted, or stopt for want of timber; an article in which that country is, in many parts, miserably deficient, especially in the *desert Carmania*, where those remains are most visible. From its being so mountainous a region, as well as so productive of sulphur and copper, in the neighbourhood of which gold is generally found, there can be no doubt of its still containing such mines, were a spirit of active industry set in motion to make the proper search: or,

rather, were not the sinews of that industry palsied by the iron hand of despotism.

For an abundant supply, however, of gold and silver, during the period that elapsed from Cyrus to the death of the last Darius, no internal resources were necessary to the Persians, since the whole wealth of Egypt and Asia continued to flow, by various channels, into that empire. In the first place, all the produce of the mines of Lydia, that made Crœsus, next to the sovereigns of Persia and India, (India, at that time but little known to the nations of Asia situated to the west of the Seendhu,) the richest monarch of the East, at the conquest of Sardis, fell into the hands of Cyrus: and, though we have no exact account of the particulars of that wealth, we are able to form some idea of it, from the magnificent presents which Crœsus is affirmed, by Herodotus, to have repeatedly sent to Delphos, and the grand holocaust, consisting of beds of gold and silver, ornamental vessels of the same precious metals, robes of purple, silken carpets, and other rich furniture, which he caused to be publicly burned in one enormous pile, in order to render that oracle propitious to his future undertakings; —a holocaust into which the wealthiest of the voluptuous citizens of Sardis threw also their most costly furniture, and in the very ashes of

which was found so much melted gold, that, according to the same historian, out of the splendid metallic mass were formed one hundred and seventeen golden tiles; those of the greatest magnitude, six spans in length; those of the smallest, three spans; but all one span in thickness.* There cannot, indeed, be adduced a more convincing proof of the unequalled wealth of the Lydians, nor of the transmutative power of ACTIVE WIDELY-DIFFUSED commerce, than the astonishing relation which we find in Herodotus, of the wealth of Pythias, a merchant of that country, who was enabled by that commerce, in after ages, when Lydia flourished in meridian splendor, under the powerful protection of the imperial dynasties of Persia, to present Darius, as we have before had occasion to remark, with a plane-tree and a vine of wrought gold; and, as he had thus shewn his munificence to one sovereign, so did he not less display hospitality blended with munificence to the other; for, when Xerxes marched with his innumerable army against Greece, the same Pythias not only entertained, at Celænæ, in Phrygia, the whole of this vast army, but made him a proffer, towards the charges of carrying on that war, of two thousand talents of silver, and three millions nine

* See Herodotus, lib. i. p. 47, et seq.

hundred and ninety-three thousand gold Darics. With which noble act of generosity Xerxes was so charmed, that instead of accepting the proffer, he ordered seven thousand additional Darics to be given to Pythias from the royal treasury, to make up the round sum of four millions in gold.

In the second place, it should be remembered that the whole amassed wealth of Egypt felt the plundering hand of Cambyses, whose vindictive fury led him not merely to plunder, but to destroy, the temples of Egypt; and that, at the burning of that of Thebes, the remains of the wealth saved from the flames amounted to three hundred talents of gold and two thousand three hundred talents of silver: but the richest article among the spoils of that temple was the stupendous circle of gold, inscribed with the zodiacal characters and astronomical figures, that encircled the sepulchre of Osymandes. At Memphis, also, then the capital of the empire, he obtained, in the ancient palace of the Pharaohs, such an immense treasure in bullion, and ornamental vases, and statues of gold and silver, representing gods and deified men, as perhaps no palace ever before contained; and many of these statues were restored, some ages afterwards, to the transported Egyptians, by Ptolemy, the son of Philadelphus, when his

armies had vanquished Antiochus, the third sovereign of the dynasty of the Seleucidæ, and on whom, in consequence, the Egyptians bestowed the illustrious title of *Euergetes*, or the *Beneficent*. Such were the sources from which, independent of its flourishing commerce, the Persian emperors drew that enormous quantity of treasure which was necessary to sustain the unparalleled magnificence of their courts of Susa and Persepolis, and which in the end, was doomed to reward the military ardour of the invading Greeks.

Previously, however, to our following Alexander in the rapid career of his triumphs over the humbled sovereign of Persia, we must digress a little from our subject, which is properly the *bullion* of the ancients, to one not less important and interesting, their *coined money*, which, according to the general judgment of medallic writers, was not in existence before the conquest of Babylon by Cyrus; though others, on the credit of Herodotus, fix the first coinage in Asia to the very early periods of the Lydian empire. In the course of the following strictures I may possibly be able to produce arguments for supposing money to have been coined and current in eras still more remote.

ON THE ORIGIN AND ANTIQUITY OF COINED MONEY.

The first commerce of mankind was carried on without the medium of any money, stamped or unstamped; it simply consisted in the barter of one commodity for another, according to the respective wants of the parties concerned in it. The greater or less urgency of the want, in general, fixed the higher or inferior price of the commodity; but the eye was often the sole judge, and quantity the chief rule of determining. There is a curious account in Cosmas, called Indicopleustes, of the ancient mode of carrying on traffic between the inhabitants of Axuma, the capital of Æthiopia, and the natives of Barbaria, a region of Africa near the sea-coast, where were gold mines, which will give us a tolerable idea of this primitive kind of commerce. Every other year, says he, a caravan of merchants, to the number of five hundred, sets off from Axuma to traffic with the Barbarians for gold. They carry with them cattle, salt, and iron, to barter for that gold. Upon their arrival at the mines, they encamp on a particular spot, and expose their cattle,

with the salt and iron, to the view of the natives. The Barbarians approach the mart, bringing with them small ingots of gold; and, after surveying the articles exposed to sale, place on or near the animal, salt, or iron, which they wished to purchase, one or more of the ingots, and then retire to a place at some distance. The proprietor of the article, if he thought the gold sufficient, took it up and went away; and the purchaser also secured and carried away the commodity he desired. If the gold was not deemed sufficient, the Axumite let it remain affixed to the article, till either more ingots were added to satisfy the full demand for it, or the first offered taken away. Their total ignorance of each other's language rendered this silent mode necessary, and the whole business terminated in five days, when the Axumite caravan departed homewards, a journey of not less than six months.* In these compacts, however, the eye must often have been deceived; and the bulk of an article was not always the proper criterion of its worth, since some articles of great magnitude were of trifling value, while others of inferior bulk were in the highest estimation. It was also impossible, in many instances, to divide, without spoiling, the commodity in request, according

* Vide Cosmas Indic. page 138, et seq.

to the proportion suited to the mutual wants and ability of the buyer and seller. It became absolutely necessary, therefore, to have recourse to some general medium in commerce, and that medium varied according to the produce of the country in which it was carried on. In some it consisted of shells, in others of cocoa-nuts, in others of leather or paper; so that, if the reader will excuse the joke, we see a *paper-currency* was established in the earliest ages. Such was the first rude money, a word which explains itself, being derived to us from *moneta*, since it advised one of the price of an article.

The *cowries*, or white shells, at this day used as currency in India, and the small Siamese coins, in form resembling *nuts*, are, in all probability, relics of this ancient usage before metals were so generally adopted as the representative signs of the value of articles of commerce. It was the beauty, firmness, and durability, of metals, that occasioned them to be so adopted, but it was many ages before they were stamped with any impression descriptive of their weight or value. It was the custom of the merchant, as in fact is still practised in China, to carry a certain portion of gold or silver into the market, and, having previously furnished himself with proper instruments and scales, he cut off and weiged out, before the vender of the

commodity wanted, as many pieces as were proportioned to the purchase of it. The great inconvenience and delay occasioned by this mode of carrying on commerce, soon induced the merchant to bring with him pieces of money, already portioned out, of different weights and value, and stamped with the marks necessary to distinguish them. There is very great reason to believe that the earliest coins struck were used both as weights and money; and indeed this circumstance is in part proved by the very names of certain of the Greek and Roman coins: thus the Attic *mina* and the Roman *libra* equally signify a pound; and the στατηρ of the Greeks, so called from *weighing*, is decisive as to this point. The Jewish shekel was also a weight as well as a coin, three thousand shekels, according to Arbuthnot, being equal in weight and value to one talent.* This is the oldest coin of which we any where read; for, it occurs in Genesis, ch. xxiii. v. 16, and exhibits direct evidence against those who date the first coinage of money so low as the time of Crœsus or Darius; it being there expressly said, that *Abraham weighed to Ephron four hundred shekels of silver, current money with the merchant.*

Having considered the origin and high antiquity of coined money, we proceed to consider

* Arbuthnot on Ancient Coins, p. 39.

the *stamp* or *impression* which the first money bore. The primitive race of men being shepherds, and their wealth consisting in their cattle, in which Abraham is said to have been rich, when, for greater convenience, metals were substituted for the commodity itself, it was natural for the representative sign to bear impressed the object which it represented; and thus accordingly the earliest coins were stamped with the figure of an ox or SHEEP. For proof that they actually did thus impress them, we can again appeal to the high authority of Scripture; for there we are informed that Jacob bought a parcel *of a field for an hundred pieces of money.* Genesis, ch. xxxiii. v. 19. The original Hebrew term, translated *pieces of money*, is KESITOTH, which signifies LAMBS, with the figure of which the metal was doubtless stamped. We have a second instance of this practice in the ancient Greek coin, denominated Βȣς, the *ox*; and we meet with a third in the old brass coins of Rome, (whence I before observed the public treasury was called *ærarium*,) stamped, before that city began to use gold and silver money, with the figure of a *sheep*, whence the Latin name *pecunia*. *Signatum est notis pecudum; unde et pecunia appellata.** In process of time, when empires were formed, and men crowded into cities, coins came to be

* Plinii Nat. Hist. lib. xxxiii. cap. 3.

impressed with different devices, allusive either to the history of its founder, some remarkable event in the history of the nation, their accidental situation, or the predominant devotion of the country. Thus the shekel of the Jews had Aaron's rod budding, with a smoaking censer. The Tyrians had their Petræ Ambrosiæ, and serpentine emblems, of which some curious examples may be seen in the plate of coins engraved in Vol. vi. The Athenian coins bore impressed an owl, and Pallas. The maritime race, who inhabited the Peloponnesus, had a testudo, or shell, as their symbol; the Persians, practised in the use of the bow, an archer, which is the constant device on the Darics; the Thessalians, a horse; the Byzantines, situated on the Thracian Bosphorus, a dolphin twisted about a trident.

Although I have combated the idea of the Lydian or Persian money being the first that was ever coined, I am induced, by the general and united attestation of ancient classical writers, perfectly to acquiesce in the judgment of medallists, that the coins of those nations were the first stamped with the effigies of the reigning prince; and the priority of coining money is, with great propriety and probability, assigned to Crœsus, the wealthiest monarch of Asia, when his capital was invaded and taken by

Cyrus, who forbore to plunder that rich city, on the express condition, that both the monarch and the inhabitants should, without reserve, bring forth their whole amassed wealth, which must have amounted to a prodigious and almost incalculable sum. This conquest gave the Persians, who were before an indigent people, without any gold or silver currency, and pent up within the contracted limits of the province properly called Persia, not only the possession of a vast treasure, but of a wide and rich territory, and laid the foundation of their future grandeur. The coined moneys of Crœsus, from the effigies of that monarch being impressed upon them, were called Crœsei; but, as it seemed improper that they should continue current with that impression, after the conquest of Crœsus and the subjugation of his kingdom, Darius, that is, Darius the son of Cyaxares, and the first of that name, under whom Cyrus then acted only as general-in-chief of the Persians and Medes, though afterwards their sovereign; that Darius, I say, it is conjectured, recoined the Crœsei with his own effigies, though he did not think it prudent to alter either the weight or value of a coin, then so generally diffused through Asia as the medium of commercial transactions. Thus recoined, and stamped with his own head, they henceforth took the name of their new

master, and from him were called Δαρεικοι, DARICS, and are mentioned in Scripture, in periods posterior to the Babylonish captivity, by the name of ADARKONIM. None of the Crœsei, that we know of, have reached posterity, unless that very ancient gold coin, mentioned by Mr. Pinkerton, in his concise, but elegant and judicious, Essay on Medals, a coin presenting to view "a man, kneeling, with a fish held out in his left hand, and a sword, depending, in his right,"* should prove to be one. It is to be seen, with several other old Persian coins, in the late Dr. Hunter's capital collection; and the writer urges the possibility of its being one of the staters of Crœsus, not only from its having the rude globosity of early antiquity, and the indented marks of the first coinages, which were made by ponderous strokes of the hammer, upon one side; but because it bears the evident symbol of a maritime country, such as Lydia was, on the other. It is of very pale gold; and is about the usual weight of those staters, which was four drachmas.

When afterwards the same Darius, by the valour of Cyrus, became possessed of Babylon, and found there that immense quantity of bullion, which has been before described, he caused the greatest part of it to be melted down and

* Pinkerton, vol. i. p. 286.

coined into Darics. On these coins, the impression, on one side, was an archer, clothed in a long Persian tunic, and crowned with a spiked crown, with a bow grasped by his left hand, and an arrow in his right: on the other side, the effigies of the monarch himself. The pleasantry of Agesilaus, at a succeeding period, on the subject of these Darics, is well known; who, when compelled to retire from an invasion of Persia, by the force of Persian gold, that had bribed Sparta over to its interest, declared he had been defeated by thirty thousand *archers*. Very few of these coins have descended to our times; because the very same reasons which operated on the mind of Darius, to convert the Lydian into Persian coins, afterwards incited Alexander to melt down the Darics for the coinage that distinguished the commencement of his new and still greater empire. Of the magnitude, however, of this famous coinage by Darius, we may form some idea, from the great number already stated to have been in the possession of one man, I mean Pythias, so often alluded to, who offered his sovereign, towards carrying on the Grecian war, a sum amounting to nearly four millions of these Darics; and what vast additional sums, still remained in the royal coffers will shortly be evident to the reader, when I return to the account of the plunder

of the Persian palaces and temples by the Macedonian invader. All the real Darics are of extremely pale gold, of the purest kind known in those days, when the art of refining metals was not advanced to any high degree of perfection; I say all the *real Darics*, for the silver coins that generally pass under that name, as bearing similar impressions, though Persian, are of a far later coinage. The Darics, according to Dr. Bernard, weighed two grains more than one of our guineas; but, containing far less alloy, may be considered as worth twenty-five shillings English.*

The next celebrated coin in antiquity is the Philippi of gold, stamped with the effigies of the father of Alexander the Great, when, as was before related, he conquered Crenides, on the confines of Thrace, and conferred his name on the gold coin, or χρυσος, of the Greeks; it was a didrachm, of the value of twenty silver drachmæ, and, allowing for the difference in the value of gold in those times and the present, may be intrinsically worth one pound of our money. Alexander, content with the full tide of glory which he was convinced would attend his name and actions in future ages, seems to have declined the celebrity which arises from multiplying the regal effigies upon

* Dr. Bernard de Ponderibus, p. 171.

coins; and, soon after his exaltation to the throne of Macedon, forbad the impression of his own portrait to be used at the mint. This was so strictly observed, that we have only one small silver coin, a hemidrachm, struck during his whole reign, (which indeed was but short,) bearing his effigies, and that is an unique in Dr. Hunter's collection. It exhibits a very juvenile aspect; and the reverse is a man on horseback, the usual ornament of Macedonian coins. His gold coins exhibit, on one side, a head of Minerva; and, on the other, a Victory, standing: his silver, a head of young Hercules, and the reverse, Jupiter sitting:—a collection of symbols that doubtless flattered the pride of the victorious son of Jove, far more than the diffusion of the impression of the head of a mere man. What pride or caprice, however, prevented being done by himself, was abundantly accomplished by his successors at Macedon, and his admirers elsewhere; so that posterity are in no want of genuine similitudes of that wonderful man. The great generals, who partitioned out among themselves his mighty empire, happily did not follow his example; and, in the series of their respective coins, the medallist finds an astonishing and delightful proof of the perfection, in this line, to which the Grecian artists gradually arrived. It is beyond

my purpose, which was only to present the reader with a general view of the subject of ancient coins, to enter farther into the examination of their merits and history. The medallic writers are numerous, and to the English reader, who may choose to proceed more largely in the investigation, Mr. Pinkerton's book will prove a very useful guide.—It is necessary that we now return to survey the utter subversion of the Persian empire, and the plunder of all its immense treasures, by a comparative handful of determined Greek soldiers: I shall, first, faithfully sketch out the picture of that grandeur and those treasures: I shall then, to use the language of the medallist, exhibit the *reverse*: —a dreadful reverse! unequalled in the annals of Asia and the history of man.

Never was there a more sudden change effected in the manners of a nation than that which took place in Persia, after the conquest of Babylon. The honourable indigence, and the strict regimen and laborious exercises, in which from infancy the Persians had been trained, were now succeeded by an ostentatious magnificence, a luxurious diet, and an indolent effeminacy. With the wealth, they caught the habits of the Lydians, and wallowed in all that unbounded voluptuousness for which the former are branded in the page of history. During

the life of Cyrus, indeed, his example and authority kept up in the army some remains of the ancient discipline; but the princes and nobles delighted rather to follow the example of Crœsus, and were plunged in excesses of every kind. The successors of Cyrus on the throne of Persia seemed to think the dignity of that throne was better supported by splendor than virtue, and aimed to secure the abject obedience of their subjects, by dazzling them with a glory that seemed more than human; so devoted indeed were they to the shameless gratification, at any price, of their licentious and stimulated appetites, and so far had they exhausted every source of known terrestrial enjoyment, that one of them, it is well known, was not ashamed, by a public edict, to offer a splendid reward to any person who should invent a new pleasure.

Ancient writers speak with rapture of the beauty of imperial Susa, and the magnificence of its sumptuous palace, so highly distinguished, as to have been the residence, during three months of the year, that is, during the spring season, of the great Shah-in-Shah, as Ecbatana was during the summer. The walls and ceilings of this palace were overlaid with gold, ivory, and amber, exhibiting the noblest designs wrought in the most exquisite taste. Its lofty throne of pure gold was raised on pillars reful-

gent with jewels of the richest lustre. The monarch's bed, also of pure gold, we have already noticed, as shaded with the golden plane-tree and vine presented by Pythias, on whose branches hung clusters of emeralds and rubies. He reposed his head on a casket containing five thousand talents of gold, which was called *the king's bolster*; and his feet rested on another, containing three thousand talents of the same metal. Every province of his vast empire daily furnished one dish, loaded with the richest rarities produced in it. He drank no water, but the pure cold wave of the Choaspes, carried with him, in silver vessels, whithersoever he went. His bread was made of the finest wheat of Phrygia; Egypt supplied him with salt; the rich high-flavoured wines of Damascus alone sparkled in his cup; the softest, sweetest, melodies soothed him during the banquet; and the loveliest women of Asia beguiled his hours of domestic retirement. When he marched to battle, the pomp of the procession was to the last degree splendid and solemn; and has been minutely described by Herodotus, Arrian, and Curtius; of whose various relations the following is the result.

It commenced the moment the sun appeared above the horizon. At that instant, a trumpet, sounding from the king's pavilion, proclaimed

the appearance of its beam, and a golden image of its orb, inclosed in a circle of crystal, was displayed on high in the front of that pavilion. The Persian banner, which was a golden eagle, the eagle of the sun, with its wings expanded, being also elevated, a body of Magi, carrying on silver altars the sacred and eternal fire, believed to have descended from heaven, advanced first. Then followed another band of Magi, chanting hymns in honour of the sun; and 365 youths, to represent the number of the days of the reformed year, clothed in flame-coloured vests, and bearing a golden rod, the symbol of his ray. After these, marched a large body of horse and men, bearing spears with their points downward. Ten consecrated horses, of surpassing magnitude, bred on the Nicæan plains, and caparisoned with furniture that glittered all over with gold and gems, preceded the chariot of the sun, (for such it was, though called by Herodotus that of Jupiter,) empty and drawn by eight white horses, the equerries attending them clothed in white vests, and also bearing in their hands golden wands. Next came the Persian band, called *immortal*, ten thousand in number, all wearing collars of pure gold, and arrayed in robes of gold tissue. Next came the male relations of the sovereign, habited in purple vests, fringed with precious

stones and pearl. The king followed immediately after, in a chariot drawn by Nicæan horses, a living mine of gold and rubies, and darting from his own person a glory scarcely less resplendent than that of the sun, whom he represented. He appeared seated on a throne, elevated above the chariot that bore him, and sustained by colossal figures of the Genii of the Persian mythology, cast in pure gold. The chariot was of gold, and from the centre of the beam, that glittered with jewels, rose two statues of pure gold, each a cubit in height, the one representing PEACE, the other WAR; over whose heads a golden eagle, the banner of Persia, spread its wings, as if to sanction the choice of the nations, whether hostile or pacific. Two thousand chosen horse, the king's body-guard, followed the royal car; succeeded by twenty thousand foot, armed with javelins, decked with pomegranates of gold and silver. Ten thousand horse brought up the rear of the army of native Persians. The rest of the innumerable host followed at a distance, in separate divisions, according to the nations which they respectively represented.

The citadel of Susa is said to have been the great treasure-house of the kingdom: in it the ancient records of the Persian empire, from its foundation, were preserved. We are informed, by Diodorus, that Alexander carried away from

this plundered capital no less than nine thousand talents of coined gold, and of gold and silver bullion forty thousand talents.* It must, however, have been in the more ancient periods of the empire that Susa was the chief treasury; because, great as this sum appears, it is comparatively trifling to what, according to the same author, that insatiable plunderer of the wealth of Asia found at Persepolis, which amounted to such an enormous sum, that besides three thousand camels which were loaded with it, all the adjoining countries were drained of their mules, asses, and other beasts of burthen, to convey it away from a city, on which he wreaked his particular and unrelenting vengeance, in return for the impolitic burning of the Grecian temples by Xerxes.† The total aggregate, in bullion, obtained at Persepolis, Diodorus states at one hundred and twenty thousand talents of gold, independent of the precious gems, the costly furniture, the vessels of crystal and agate, the vests of Tyrian purple and gold embroidery, found in profusion in the houses of the Persian nobles and merchants. At the taking of Damascus, after the battle of Issus, he found in the royal coffers two thousand six hundred talents, in coined money, and five hundred in

* Diodorus Siculus, lib. xviii. cap. 66.

† Ibid. lib. xvii. p. 63.

bullion, and with the other treasures, taken in that wealthy city, loaded seven thousand mules. Ten thousand talents, at one time, and thirty thousand at another, were the sums offered by Darius to Alexander, as the ransom of his captive wife and daughters. The battle of Arbela put him in possession of all the costly utensils and splendid equipages of Darius, with four thousand talents in money. In Pasargada he found six thousand talents; and, in the royal city of Ecbatana, according to Strabo,* no less than one hundred and eighty thousand talents.

Of these immense sums heaped up together by Alexander in his rapid conquest of Persia, he was by no means sparing in the use; his largesses to his soldiers at different times were great beyond calculation; and, in his sumptuous and repeated banquets, he aimed to display the magnificence rather of a god than a man. Towards his friends and favourites, too, he manifested his liberality in a manner equally unparalleled, since he presented Aristotle, his preceptor, for his natural history of animals, with no less a sum than eight hundred talents, or one hundred and fifty-five thousand pounds;† and on the funeral only of his beloved Hephæstion,

* Strabonis Geograph. lib. xv. p. 741.

† Athenæus, lib. xii.

he expended twelve thousand talents, considerably above two millions sterling.* Having transported all these myriads to Babylon, which city there is every reason to think he meant to make the metropolis of his new empire, THE WORLD, as Alexandria was to be the staple of its commerce, this mighty conqueror there perished, the victim of intemperance. Not content with the laurels obtained by the subjugation of Asia, and the honour of having rewarded Aristotle, the invincible Alexander must ravish from his comrades the chaplet of the bacchanal; and the capacious Herculean goblet of two CHOÆ,† consigned him in the bloom of life and glory to that grave into which his cruel ambition had recently precipitated the unfortunate Darius. After his decease, independent of gold and silver statues, vases, and other ornamental furniture of the palace of Babylon, in the treasury of that city were found one hundred thousand talents, a sum exceeding nineteen millions sterling, but which will excite no wonder in the reader's mind, when he is informed, from Justin, that the total amount of the tribute annually arising from his conquest of Persia, India, and the other empires of Asia and

* Diod. Sic. lib. xvii.

† The χοῦς was an Athenian measure, holding seven pints, frequently used at festivals, and drank off by way of bravado.

Africa, amounted to three hundred thousand talents, or upwards of fifty-eight millions of our money.* What became of this enormous treasure, the greatest the sun ever shone upon, will presently be unfolded, when we display new empires bursting from the ashes of this costly phœnix, consumed by its own blaze; and exhibit Egypt, Syria, and Macedon, glittering in the spoils of the Higher Asia. But before I introduce my readers once more to the splendid courts of the Ptolemies, the Seleucidæ, and the new Macedonian dynasty, some important collateral events must be recapitulated, and the field of the gorgeous India more minutely explored.

In enumerating the ancient mines, I ought not to have omitted more particularly mentioning, as not the least celebrated, the silver mines of Attica, and the golden mines of Thrace. The annual produce of the mines of Sunium I do not find precisely stated, though that it was very considerable may be collected from this circumstance, that, whereas in Asia, according to Herodotus, the proportion of gold to silver was as one to thirteen; at Athens, according to Plato, it was but as one to twelve.† Of the produce of the Thracian mines, re-

* Justin Hist. lib. xiii. p. 147.

† See Herodotus, lib. iii. and Plato in Dialog. *Hipparchus.*

opened, after the conquest of Thrace by Philip, king of Macedon, we can state, with certainty, from Diodorus, that it amounted to one thousand gold talents annually, or near three millions of our money, which went, by hereditary claim, additionally to swell the treasures of the great Alexander.* The principal hoards, however, of treasure, both in bullion and coined money, among the Greeks, we know to have been in their temples, which were crowded with presents of immense value, brought by the superstitious from every part of Greece. These temples were considered as national banks, and the priests officiated as bankers; not always indeed the most honest, as was once proved at Athens, where the state-treasurers, having expended or embezzled the public money, had the audacity to set fire to that part of the temple of Minerva where the treasure was contained, by which sacrilegious act that magnificent fane was near being wholly consumed. Their purpose, however, was fully answered, since the registers of the temple were reported to have perished with the treasures, and all responsibility precluded.

The temple, just mentioned, the superb fane of Jupiter Olympius, at Elis, and that of Apollo, at Delphi, were the principal of those sacred

* Diodorus Siculus, lib. iii. p. 249.

depositaries. The priests, at all times, concealed the total sum of the treasures lodged in them with too much caution for us to know the amount, yet, when the Phocenses, urged to despair by the exactions of the Thebans, seized on the treasures of Delphi, they amounted to ten thousand talents, above two millions two hundred and fifty thousand pounds sterling;* and probably that but a small portion of what holy perfidy had previously secured. Those deposited at the great temple of Ephesus, considered through all ages as inviolable, probably far exceeded those of the three last-mentioned. After all, whatever credit may be due to the piety of mankind in devoting their gold and silver to the service of the deity, it was extremely impolitic to make their temples, as was the custom through all antiquity, the receptacles of such unbounded wealth; since it served only to spirit up every desperate invader of Asia to acts of the most nefarious plunder and sacrilege, as was dreadfully and repeatedly experienced by the miserable race of Palestine. Violent and reiterated as were the outrages committed in the Holy Land in the successive irruptions of their rapacious neighbours, they were by no means so extensive and ruinous as the desolation which the sanguinary fury of

* Diodorus Siculus, lib. xvi. cap. 76.

Mahommedan superstition, hurled with its wasteful hand over the fertile provinces of Hindostan, and through her august pagodas; pagodas overflowing for ages with the accumulated wealth of the whole western world.

I have already shewn, that it was to the shores of India that the great current of the treasures in gold and silver, produced by the mines of Spain, flowed, to be there swallowed up in a vortex that never regurgitated the shining spoil. Imagination is scarcely able to conceive the magnitude of the amount, in bullion and coined money, amassed during so many centuries in that secluded region of Asia; and the historians of Mahmud, of Gazna, who principally enjoyed the plunder of it, are at a loss for words to describe the astonishment and exultation of that prince, whose mind equally felt the goad of avarice and ambition, at the sight of it. They endeavour to impress us with some faint idea of it, by asserting, in their hyperbolical way, that he there saw a tree of pure gold, of an enormous size, growing naturally out of the soil;* which though doubtless to be understood allegorically, may approach nearer the truth than some other of their romantic strains, since, to imitate vines and other trees in gold was an ancient and very

* See Orme's Hindostan, vol. i. p. 9.

favourite custom of the Indian metallurgists; and I have already, in former parts of this work, given two very apposite instances of it. The first is from Curtius, who, describing the palace of the luxurious monarch Musicanus, whose domain was situated towards the mouth of the Indus, that anciently rolled down gold from its mountainous source, particularly mentions the golden vines that twined around each of the columns that sustained the portico of his palace, in whose spreading branches were seen interspersed birds of silver, and others of various coloured enamel, to resemble nature. The second was the splendid gallery, seen by Tavernier, in the palace of Agra, which was partly covered with a kind of lattice work of gold, over which the tendrils of a golden vine diffused themselves, bearing fruit, of emerald, rubies, and other precious stones, resembling grapes in their different advances towards maturity; but this magnificent project he was obliged to drop, as, according to that traveller, it would have taken up more riches than all the world could furnish. The same device I have had repeated occasion to mention as much in esteem at the Persian court.

In evidence of their superabundant wealth in bullion may be enumerated the expiatory oblations for certain offences, ordained by the

Hindoo code, to be made in that metal by the ancient rajahs, and which, in fact, were frequently made to atone for, or to avert, evil; as, for instance, the weight of the person presenting the offering, in gold or silver; TREES AND VINES OF GOLD; golden elephants; golden horses and cows; and even chariots, drawn by horses and elephants, entirely of gold.*

The principal use, to which the Indians seem to have applied the immense quantity of bullion, from age to age imported into their empire, was, to melt it down into statues of their deities; if, indeed, by that title we may denominate the personified attributes of the Almighty and the elements of nature. Their pagodas were anciently crowded with these golden and silver statues; they thought any inferior metal must degrade the Divinity, and the sacred emanations that issued from the Source of all Being. Every house, too, was crowded with the statues of their ancestors, cast in gold and silver; those ancestors that were exalted to the stars for their piety or valour. This custom of erecting golden statues, in their houses and temples, to brave and virtuous men, seems to have remained long after the time of Alexander; for, we are told, by the same Apollonius, that he saw in India two

* Ayeen Akbery, vol. iii. p. 229.

golden statues of that hero, and two of brass, representing Porus, the conquered Porus, and therefore of inferior metal.* The very altar of the temple was of massy gold; the incense flamed in censers of gold; and golden chalices and vases bore the honey, the oil, the wine, and the fruits, offered at their blameless sacrifice. I have already mentioned the temple of the Sun, or rather of Auruna, the day-star, described by Philostratus, whose lofty walls of porphyry were internally covered with broad plates of gold, sculptured in rays, that, diverging every way, dazzled the beholder, while the radiant image of the adored deity burned in gems of infinite variety and unequalled beauty on the spangled floor. The floor, also, of the great temple of Naugracut, in the northern mountains, even so late in time as the visit of Mandesloe, we have seen, was covered with plates of gold; and thus the Hindoo, in his purer devotion, trampled upon the god of half mankind. In the processions, also, made in honour of their idols, the utmost magnificence prevailed; they then brought forth all the wealth of the temple, and every order of people strove to outvie each other in displaying their riches, and adding to the pomp. The elephants marched first, richly decorated with

* Philostrat. lib. ii. cap. 11.

gold and silver ornaments, studded with precious stones; chariots, overlaid with those metals, and loaded with them in ingots, advanced next; then followed the sacred steers, coupled together with yokes of gold, and a train of the noblest and most beautiful beasts of the forest, by nature fierce and sanguinary, but rendered mild and tractable by the skill of man; an immense multitude of priests carrying vessels, plates, dishes, and other utensils, all of gold, adorned with diamonds, rubies, and sapphires, for the sumptuous feast of which the gods were to partake, brought up the rear.* During all this time the air was rent with the sound of various instruments, martial and festive; and the dancing girls displayed, in their sumptuous apparel, the wealth of whole provinces exhausted to decorate beauty devoted to religion.

If the zeal of the Arabians to make proselytes, added to their insatiable avarice, had not burst upon India in such a torrent of wide-wasting destruction, so little did the Greeks and Romans know of the internal provinces of India, we should probably to this day have remained in ignorance of the riches with which their palaces and their temples overflowed. Their native monarchs, grey with

* Strabo, lib. xv. p. 710.

age, and venerable for wisdom, would still have poised the equal balance, and still wielded the righteous sabre. But, when the crescent of Mohammed rose to shed its baleful lustre on the banks of the Seendhu, the order and harmony, immemorially established throughout that vast empire, by the profound policy of its legislator, instantly fled; all the sanctities of religion, and all the bulwarks of ancient law, were alike trampled upon; the fortitude of the rajah availed him not, and the priest in vain thundered forth his anathemas. The tiara was rudely torn from the head of the former, and the golden slumber of the latter was for ever broken. No palliation, no compromise, was admitted. The bigotted fury of the first invaders of India urged them to exterminate rather than subdue; the tithe would not content them; their merciless grasp seized the whole spoil. The western provinces first felt that fury; and, in my account of Lahore, in the Geographical Dissertation, I had occasion to intimate the enormous treasure found only on the person of the rajah of that province; who, when taken captive, had around his neck sixteen strings of jewels, each of which was valued at above a hundred and eighty thousand rupees, and the whole at three hundred and twenty thousand pounds sterling; a sum, how-

ever, comparatively trifling, compared with that of which the sultan of Gazna afterwards became master in his irruption into the same province, and which Mirkhond states at seven millions of coin in gold, seven hundred maunds of gold in ingots, together with an inestimable quantity of pearls and precious stones.* The maund is a Persian weight, varying in different parts of the East, but never estimated below forty pounds.

Let us attend this valiant marauder on another or two of his plundering excursions into Hindostan. At the holy fane of Kreeshna, at Mathura, he found five great idols of pure gold, with rubies for eyes, of immense value. He found also there a hundred idols of silver; which being melted down, loaded as many camels with bullion; and it will be remembered that the usual load which this powerful animal carries is from 750 to 1200 lb. weight, varying according to its magnitude. At the great temple of Sumnaut he found many thousand of gold and silver idols of smaller magnitude, a chain of solid gold, which was suspended from the roof, and weighed forty maunds, besides an inestimable hoard of jewels of the first water.† This prince, a day or two

* Mirkhond apud Texeira, p. 280.

† See Herbelot on the article Mahmud, of Gazna; and Ferishta, pages 73 and 86.

before his death, gave orders for the whole wealth of his treasury to be placed before him; and, having for some time, from his throne, feasted his eyes upon the innumerable sacks of gold, and caskets of precious stones, burst into tears; possibly from anguish at the thought of leaving so much treasure behind, but, far more probably, from the cutting reflection of having obtained it, from the plundered Hindoos, by a series of the most atrocious murders, under the sounding and delusive name of conquest.

Astonishing as these accounts of the wealth, found by the first conquerors of India, may appear, yet, when we consider that this is the accumulated undisturbed wealth of a great empire, that had, for nearly three thousand years, been absorbing into its bosom the gold and silver of the whole world, they will not be found absolutely incredible, though possibly, in some degree, exaggerated by the pen of Eastern historians. It should also be remembered, that not only the whole western world had been thus long tributary to India for her gems, linen, and spices, but that the mines of the Aurea Chersonesus, generally thought to be Siam; those of Japan, productive of the purest ore; those of Pegu, Sumatra, and Borneo, have immemorially, through one channel or

another, supplied the markets of India with these precious metals; and, when once imported either into India or China, we know that express and severe laws forbade its exportation, except when blended and incorporated with the brocades and other rich manufactures of those countries. In direct proof, however, that the above splendid details do by no means originate merely in the fanciful brain of the Asiatic biographers of the Gaznavide sovereign, may be adduced the almost-infinite treasures obtained by Gengis, Timur, Baber, Nadir, and all the other successive plunderers of Hindostan, down to the sordid wretch,* who, not many years since, tore down the plates of silver from the ceiling of the Divan of Delhi, broke up the floors of that palace for concealed treasures, and after having meanly seized on and sold the robes of the seraglio, endeavoured to extort, by the most excruciating pangs of famine, from the humbled emperor and his attendants, that wealth which the repeated ravage of his limited domain did not permit the last of the race of Timur to possess. The riches obtained in these invasions shall be discussed in the succeeding Sections, in which I shall recount the wealth of modern times, and the

* Gholaum Kaudir. See an account of this last dreadful irruption in Asiatic Researches. Vol. iv. p. 421.

sources of it, and compare it with that of the ancient world. I shall commence with an historical view of the successors of the hero of Macedon, who, flushed with conquest, and loaded with the spoils of plundered Asia, are urging their triumphant progress to the respective kingdoms, which they have mutually, but faithlessly stipulated to make the limits of their ambition.

SECTION II.

The Author, in this Section, returns to the Consideration of the Wealth obtained by ALEXANDER, *and its Dispersion by his Successors, the* PTOLEMIES *of* EGYPT, *the* SELEUCIDÆ *of* SYRIA, *and the* MACEDONIAN *Sovereigns.—A Description, from* ATHENÆUS, *of a magnificent Festival, of the Phallic Kind, celebrated at* ALEXANDRIA, *in* EGYPT, *in which a very large Portion of the Golden and Silver Spoils of* BABYLON *was displayed.—A Second Description, from the same Writer, of the splendid Pomp and Procession solemnized by* ANTIOCHUS EPIPHANES, *at* DAPHNE, *in* SYRIA; *and exhibiting a still farther Display of the plundered Treasures of the* PERSIAN *Empire.—A Third from Plutarch, of the Riches found in the Palace of* PERSEUS, *the last King of* MACEDON, *and displayed to the* ROMAN *People during the Triumph of* PAULUS ÆMILIUS, *the Conqueror of* MACEDONIA.—*The Whole accumulated Treasures of* ASIA *stated to have finalty centred in* ROME, *and Instances enumerated of the astonishing Wealth possessed by some of the private Citizens of that Republic.*

—Of those Treasures, a considerable Part dissipated by their unbounded Profligacy; a still more considerable Portion fell to the Lot of the GOTHS, VANDALS, *and other barbarous Nations who plundered Rome; but by far the most considerable Portion was buried during the Times of Tyranny and Turbulence, that marked the Reigns of the latter Emperors, in that Earth from which it originally came.*

THE extent of the dominion and the magnitude of the spoil obtained by Alexander, exciting not less the ambition than the avarice of his captains, for a long time engaged them in the most unrelenting hostilities, and became the occasion of deluging Asia with new torrents of blood. The final result of those contests for wealth and empire, it is well known, was the firm establishment of Ptolemy on the throne of Egypt and its vast dependencies; Seleucus, on that of Syria, with all those rich provinces of Asia that formed the Persian empire; Cassander, on the throne of Macedon and Greece; and Lysimachus on that of Thrace, Bythinia, and all the remaining territories won by the sword of Alexander. It may, indeed, be reasonably supposed, that no inconsiderable share of the *coined money* in the treasury of Babylon was dissipated in the course of the violent

struggles of the contending parties, but still the great mass of bullion remained unviolated; and each competitor carried away to his respective dominions such a proportion of gold and silver vases, statues, and other ornamental furniture of the superb palace of Babylon, as might be mutually agreed on. But Ptolemy, the most powerful, from interest, talents, and kindred, (for, he is with great reason supposed to have been the brother of Alexander,) seems to have obtained the largest share; since, without it, he never could have executed those stupendous projects, kept up that magnificent court and those expensive establishments, and maintained those vast armies and fleets, whose number we have before recapitulated. One particular project, indeed, that of reviving the trade of Egypt with Arabia, India, and the higher Æthiopia, could not fail of being attended with circumstances the most auspicious to his revenues; and bringing such an influx of wealth into that kingdom as it had never witnessed under the most potent of her ancient sovereigns. Near the close of a long and glorious, though, during its early periods, turbulent, reign, this wise prince, to prevent the court-cabals and jealous contentions usual at the decease of great eastern Monarchs, resolved to associate with himself in the imperial

dignity, his son Ptolemy Philadelphus; and it was at the grand procession, which took place at the coronation of that august prince, that all the wealth of Egypt in these articles was displayed. The particulars of this pompous festival are related by Athenæus with a minuteness which there is no occasion for me to imitate, my object being, principally, to present in order before the reader's view the costly remains of the Assyrian and Persian grandeur, and I may also add that of the ancient Pharaohs; not only that portion of it which was plundered by Cambyses, but, in all probability, much of that which the brave, but unfortunate, Nectanebus, the last of her proud dynasty of native sovereigns, carried away with him into Æthiopia, when he fled before the ravages of Darius Ochus; and which might have floated back to Alexandria in the reflux of the revived commerce of Egypt with the empire beyond the cataracts.

A series of tents, the hangings of which were fabricated of the richest materials which the looms of the East could furnish, the gold and silver brocades of Persia, the fine linen of Egypt, and the delicate cottons of India, composed the royal pavilion. It was adorned with numerous statues, sculptures, and emblematic paintings, allusive to the grand occasion; the elaborate work of the most exquisite artists

that Greece could produce. The pillars that sustained the pavilion were of massy silver, and shields of gold, suspended on high in every part of it, proclaimed at once the magnificent and warlike genius of the sovereign of Egypt.

An artificial cavern, sunk in a remote part of the pavilion, was assigned to the comic, tragic, and satyric, actors, who there feasted upon gold plate, and drank out of gold cups, and who, occasionally issuing from their recess, alternately entertained the company with the display of their respective talents. On the roof glittered two golden eagles, the ancient banner of Persia, and probably from that nation adopted by their victors; each eagle fifteen cubits in height. Along the sides of the pavilion were ranged one hundred sofas, adorned with rich embroidered coverlets, and of which all the solid parts were gold; the feet having the form of sphinxes. Before each of these sofas were placed golden tripods or footstools, two for each; while on one side of the sofas were placed one hundred gold dishes, with golden phials for lavation; and on the other as many golden vessels, richly set with jewels. The whole value of the plate thus exhibited to view, our author informs us, amounted to ten thousand talents.

No adequate conception can be formed of the grandeur and brilliancy of the procession.

Numerous victories, with expanded wings of gold, were first borne along. Next followed a double altar, six cubits in height, wreathed with foliage of gold, decorated with golden ornaments and instruments of sacrifice, and bound round with a crown of gold. Then came one hundred and twenty youths, each carrying a vase of gold; and these were succeeded by forty satyrs, wearing on their heads, and bearing also in their hands, crowns of gold. Two Sileni, each bearing a gold caduceus, and between them a man of gigantic stature carrying also a proportional caduceus of the same metal. These were introductory to the peculiar deity upon whose sports they attended, Bacchus, to whose *numen* the pomp was devoted. And now were borne aloft two mighty vases of gold, called Θυμιατηρια, or medicine of the soul, with a square altar of solid gold, sacred to that deity. Another band of satyrs, carrying vases of gold, immediately preceded Bacchus himself, a figure ten cubits in height, enthroned in a car drawn by a hundred and eighty men; before him stood a vast Laconic goblet, big enough to hold ten meretræ; a measure of a hundred pound weight. This was followed by a tripod of gold, upon which there was placed another Θυμιατηριόν, and two gold phials preceded Nysa, the nurse of Bacchus, a figure of the height of eight

cubits, wearing a gold crown, and holding in her hand a gold phial. She was followed by a hundred and twenty Sileni and satyrs, some of whom carried dishes, others phials, others capacious *Therikcæan* cups of gold. Such was the order and march of those who were to display the treasures in *golden* ornaments and utensils of the sumptuous court of the Ptolemies.—Those fabricated of silver were not less numerous and stupendous, and are thus detailed by Athenæus.

First was exhibited a *crater* of that metal of such enormous magnitude, that the car in which it was placed was obliged to be drawn along by six hundred men; it was so ample as to contain six hundred meretræ; and the margin was enriched with a crown of gold, set with all manner of precious stones. It was followed by two other silver vases of inferior dimensions, but still vast; for they were twelve cubits in breadth, and six cubits in height. Then slowly moved in order, before the whole assembled city of Alexandria, gazing in profound astonishment, the under-mentioned costly articles; ten huge tubs of silver; sixteen silver flagons, the largest of which contained thirty meretræ, and the least five; ten silver caldrons; twenty-four vases, each with two handles, on five salvers; two silver presses, containing twenty-four gob-

lets; a table of massy silver, of the height of ten cubits; and thirty other tables six cubits high; four tripods of prodigious magnitude, the largest sixteen cubits in circumference; the three others of inferior magnitude, were adorned in the middle with precious stones; twenty-four *Delphic* tripods of silver, still less, and of a different fashion; twenty-six pitchers for water; sixteen *Panathænaic* amphoræ; and a hundred and sixty other silver vessels of all sizes, of which, however, the least held not less than two meretræ; that is two hundred pounds weight. Surely, Mexico itself, that mine of silver, when CORTES made his triumphal entry into that capital, could scarcely have exhibited a grander spectacle. But the torrent of wealth, poured forth from the new into the old world, will form a subject of future consideration. Let us attend (for, we have not half gone through this magnificent procession) to the remaining articles of regal grandeur displayed at this proud festival in Egypt, the spoils of the plundered temples and palaces of Persia, and probably of many of those which, on the Panjab and on the rich shore of the Indus, experienced the fury of Macedonian avarice. The vessels already described, from their enormous dimensions, seem to have been appropriated to the service of the temple solely, and fully verify

all that was said above, concerning the riches of those of Belus and the Dea Syria; the infinity of vases, *all of gold*, to be now enumerated, probably formed part of the splendid furniture of the palaces of Susa, Persepolis, and the great Babylon.

This part of the procession commenced with the exposition of four *Laconic* and two *Corinthian* vases of the finest gold, each of which held eight meretræ. A press, or side-board, followed, bearing ten goblets and two vases, each of which held the quantity of two meretræ. Then came in order the following articles: twenty-two vases called *Psycteres*, the largest containing thirty meretræ; and the least, one; four noble tripods of gold; a vast machine, or case, of gold, ten cubits in length, for holding the vases, divided into six compartments, curiously engraved, and adorned with figures of animals, four palms high; two very large goblets; two salvers of gold, four cubits in diameter, and three others of less dimensions; ten amphoræ, or great jars of gold; a golden altar six cubits high; and twenty-five pateræ.

We now come to circumstances that prove this festival to have been of the Phallic kind, as indeed were all the Bacchanal festivals of ancient æras, Bacchus representing the sun, the great invigorative power of nature, who ripens

the ore in the mine, and therefore properly dedicated to him. In this part of the pomp, gold and silver are promiscuously introduced, and I am inclined to think the circumstance allusive to his own conjunction with the moon; silver being her *chemical* distinction. Consonantly to the idea abovementioned, sixteen hundred youths, in the flower of their age, now appear carrying vases of gold and silver, and three hundred and twenty of that particular sort of gold vessel, called, by the ancients, Ψυκτηρες, *vasa in quo vinum refrigeratur*, or immense vases, used in the hot Eastern countries for the purpose of cooling wine. Young men, of more mature years, now succeed, carrying vases of gold and silver. Next a train of nymphs, sporting around an artificial cave, drawn along in a car, appeared in crowns of gold, while Mercury waved over their heads a gold *caduceus*, that is, in fact, a thyrsus encircled with serpents. Bacchus now re-entered the plain with the same gigantic form, but exalted upon an elephant; a radiated crown of gold encircled his temples, and he wielded in his hand a gold thyrsus of considerable magnitude. Another elephant followed, upon whose neck rode a satyr, having on his head a crown of gold; the elephant also had a gold crown, and his ness and caparisons were entirely of that

metal. Five hundred young virgins followed, all decked with crowns of gold; after them, one hundred and twenty satyrs in complete armour, some of silver and others of brass; and these, to render the scene as varied and diverting as possible, were succeeded by five troops of asses, glittering in gold and silver trappings, with Sileni and satyrs mounted on their backs. Next came sixty Æthiopian savages, carrying vases full of gold and silver coin, and loaded with the gold dust which their country so abundantly produces. Priapus was too important to be excluded from a Phallic festival, and therefore he appeared conspicuous with a brilliant diadem of gold. The city of Corinth, then the centre of luxury and voluptuousness, was represented by a female of great majesty and beauty, and wore a diadem of equal brilliancy. Alexander himself conjured up from the shades of Erebus, accompanied by Ptolemy and his other favourite generals, was seen stalking among the motley crowd, admiring the magnificence of his new-built city, and issuing orders for the conquest of new worlds. Before him, was carried a monstrous vase of gold, possibly in allusion to his death by the Herculean cup, and it was full of small golden cups, by which the stream of intemperance flowed among the individuals present at the fatal banquet. But now

a still more splendid and crowded scenery took place, and the great distinguishing pageants of the pomp were ushered in by a vast and beautiful train of women, representing the cities of Ionia and the Grecian islands, all bearing crowns of gold, inscribed with the name of each city, represented and decorated with a profusion of golden ornaments allusive to its peculiar history and commerce. They moved on majestically, with measured step, before a four-wheeled car, bearing an immense thyrsus of gold, ninety cubits long; and by its side a silver lance of the length of sixty cubits. On another superb car was elevated a PHALLUS of gold, one hundred and twenty cubits in length, and of the circumference of six cubits; crowned on the summit with a radiated star that blazed in gold. Three hundred youths followed this stupendous ensign of Bacchus, wearing on their heads crowns of gold, and carrying, in their hands, guitars overlaid with plates of that metal, which sounded forth symphonies that waked the transported soul to the pleasures of love and the festivities of wine. The procession, in honour of Bacchus, closed with a procession of no less than two thousand bulls, the animal sacred to that deity, each wearing a frontlet of gold, surmounted with a golden crown; and also adorned with a collar and ÆGIS of gold.—Bacchus,

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under the terrestrial name of Osiris, being the god-king of Egypt, and the founder of its most ancient dynasty, the reader will scarcely be surprised, that, in the celebration of his rites, all the treasures of that kingdom should be displayed, and that it even surpassed in splendor the pomp of Jupiter and other deities, which now took place, but which can only be cursorily noticed.

As Alexander was the son of Jupiter, his statue, in massy gold, appeared conspicuous in that procession, and, after them, were borne several royal thrones, fabricated of gold and ivory, (among them, probably Solomon's,) to mark his subversion and seizure of the imperial thrones of Asia. All these thrones bore crowns of gold, and golden *cornucopiæ*, a symbol which we see constantly impressed on the coins of the Ptolemies. Nothing, however, could equal in value or lustre the gorgeous throne of Ptolemy Soter himself, set with jewels, and decorated, with a crown; in making which, our author informs us, were expended ten thousand pieces of gold, though of what weight he does not specify. Then followed three hundred censers of gold, in which were burned the richest perfumes of Egypt and Arabia, and which wafted around the assembly those exquisite odours so necessary to relieve the spirits, that began to be

wearied with a procession so prolonged, though so brilliant. After the censers, were borne fifty gilt altars, with crowns of gold on each, and on one of which were fixed four torches cased with gold, six cubits in height; twelve gilt hearths, of vast dimensions, for the sacred fires; nine Delphic tripods of solid gold, four cubits in height; eight others, six cubits high; another worthy of Apollo himself, thirty cubits in height, adorned with animals, wrought in gold, each five cubits high, and circled with a chaplet of gold, formed to resemble vine-leaves. Besides these, there was an infinite variety of vessels richly gilt, which it is beyond our purpose to enumerate; but the historian, summing up the number of gold crowns, exhibited in the pomp of Jupiter alone, makes the whole amount to three thousand and two hundred, independent of a most magnificent one, of the height of eighty cubits, which was placed over the portal of the temple of Berenice, the wife of Ptolemy, but taken down to increase the unequalled splendor of this festival.

The most remarkable articles exhibited in the pomps of other deities were a great ægis of gold; the innumerable crowns of gold worn by the virgins that contributed to form those pomps; a gold *thorax* of twelve cubits; another of silver, eighteen cubits high; a peculiarly

splendid diadem formed to resemble oak-leaves, and glittering with precious stones; twenty shields of solid gold; sixty-four sets of complete armour all of gold, with greaves of gold, probably of a vast magnitude, and these were displayed in the procession in honour of Mars or Hercules; dishes, phials, vases, and pitchers, of gold; and, in particular, five tables, decorated with gold goblets; a prodigious cornucopia of gold, of the height of thirty cubits; the whole pomp being closed with twenty carts loaded with smaller vessels of gold; and four hundred full of pateræ, vessels, and other utensils of silver.*

The reader, who does not possess a warm Oriental fancy, may possibly be inclined to think all this a fable wilder than Arabian; and yet Athenæus is an author of great respectability, and due attention to what has before been observed, concerning the rich and abundant sources whence the treasures of Eastern princes were derived, renders the whole account extremely probable; for, notwithstanding all the expensive, and some disastrous, wars, in which the Ptolemies were engaged for a series of years with the kings of Syria, their potent rivals in wealth and fame, from the Roman accounts

* Vide Athenæi Deipnosophist. lib. v. p. 197 to 203. Edit. Casaubon.

of the astonishing magnificence that reigned in the court of Cleopatra, we may be convinced, that the source of the vast treasures of that dynasty was not dried up; for, in truth, that source was the commerce with India, instituted by the first Ptolemies, and preserved sacred and inviolable by the last; a commerce, of the magnitude of which some judgment may be formed from this circumstance, that in the time of Augustus Cæsar, the taxes paid to the Roman government by Alexandria alone amounted, according to the lowest calculation by which Dr. Arbuthnot could estimate that amount, to one million six hundred twenty-seven thousand five hundred pounds.* The particular instance of the splendor and profusion in which Cleopatra lived is to be found in the same Athenæus, from whom I have extracted the long description above, and it proves that the gold and silver plate enumerated in it still remained in great abundance in the palace of Alexandria; for, having invited Anthony to a banquet at which the vast number of gold cups, set with jewels, excited his admiration and astonishment, that queen immediately presented him with the whole assortment made use of at the entertainment, and ordered her attendants to carry them all to his house. The succeeding day he was

* Arbuthnot on Coins, p. 193.

again invited to a royal banquet, and requested to bring with him all the chief officers of his army; and, when that banquet was over, every guest was presented with the gold cup out of which he had drunk.* Nay, her extravagance was carried to such an extreme, that, having in her ears two of the finest and largest pearls ever seen, each supposed to be worth above eighty thousand pounds of our money, she dissolved one of them in vinegar, and drank it off; and was going to dissolve the other in the same manner that Anthony might pledge her in a draught of similar cost, but was prevented by the interference of the company.† It is probable that the famous pearl with which Julius Cæsar presented Servilia, the mother of Brutus, and worth, according to Arbuthnot, £48,457. 10*s.* sterling, came from the same quarter; for, Cæsar had been the prior favourite of the voluptuous Cleopatra. After these well attested facts, which were, in Pliny's time, commonly known at Rome, our author's assertion will probably more easily obtain credit with the reader, that the regular annual revenue of Ptolemy Philadelphus amounted to fourteen thousand eight hundred talents in money, independent of the immense tribute paid in kind

* Athenæus Deipnosophist. lib. iv. p. 147.

† Plinii lib. xxxiii. cap. 3.

by many of the provinces of Egypt, whence money could not conveniently be drawn; and that, at his decease, were actually found in his treasury seven hundred and forty thousand talents, a sum amounting to one hundred and ninety millions sterling.*

Having taken this view of the riches and grandeur displayed in the capital of one of the dynasties founded after the decease of Alexander, we must now direct our survey to those of another, the Seleucidæ, who, though denominated sovereigns of Syria, yet, in fact, possessed all the rich and extensive domains that formerly constituted the Persian empire; but Seleucus, the first of that dynasty, having built the superb city of Antioch, in Syria, fixed on that city, as did the sovereigns, his successors, for the metropolis of his empire. There can be no doubt, that, with the throne of Persia, a very considerable portion of its ancient riches was assigned to Seleucus, as well to maintain its splendor as to defray the expenses of a government that stretched in a vast line from the shores of the Mediterranean to the river Indus. It should also be remembered, that, in this partition of the empire of Alexander, his Indian conquests fell to the lot of

* Athenæus, lib. v. p. 103, and Bernard on the Weights and Measures of the Ancients, p. 186.

Seleucus, and though he bartered away those conquests to Sandrocottus, by the mediation of Megasthenes, his ambassador at Patna, then the capital of India, we may rest assured, that, from that quarter, by commerce or otherwise, no small quantity of treasure poured into the provinces adjoining its western confines, which must ultimately find its way to the distant capital. Engaged, however, in almost incessant wars, and, when peace arrived, resolutely pursuing, like Ptolemy, the wise projects of Alexander in erecting cities, and encouraging that extensive commerce for which Antioch was at once so commodiously situated and so widely famed, that great prince hoarded not up useless treasures, but expended with wisdom what he received in abundance. His successors on the throne of Syria by no means acted with his wisdom or policy, and, amidst their other insanities, violated the harmony that had for many years subsisted between the families of the two most renowned generals of the school of Alexander. This rash conduct occasioned the descent of Ptolemy Euergetes, who, in the reign of Antiochus Theos, with a vast army, laid waste and plundered the richest provinces of the Syrian empire, carrying back with him into Egypt no less than forty thousand talents of silver, an inestimable quantity of gold and

silver vessels, and two thousand five hundred statues, of many of which Cambyses had formerly pillaged Egypt, and, from returning which to its violated temples, the conqueror obtained, as before-intimated, from its grateful inhabitants, the illustrious title of Benefactor.*

Still, however, amidst the desolations of war and the ravages of avarice, a sufficient quantity of treasure remained to the Seleucidæ for the exhibition, even in the late period of their declining power, and after Antiochus the Great had been despoiled by Scipio Africanus of that enormous aggregate of wealth, the influx of which was the source at once of the grandeur and ruin of Rome, for the exhibition, I say, of a spectacle only inferior in magnificence and brillancy to that of the first Ptolemy. We are indebted to Polybius for the description of this splendid procession which took place in the reign of Antiochus Epiphanes, at Daphne, near Antioch; the more splendid on account of the numerous cavalry who helped to form it, and who, by the lustre and clangor of the peculiar armour worn by them, as well as the prancing and costly caparisons of the noble animal that

* See Justin, lib. xxvii. cap. 1, and Hieron. on Dan. cap. 11, in which chapter this irruption is plainly, and almost in as many words, predicted.

bears them, never fail to throw an additional glory on this kind of exhibition.

An immense body of infantry, in the war-like habits of the respective nations of Asia Minor, Greece, and Rome, having for the most part crowns of gold on their heads, and bearing shields of silver, marched foremost in the procession. They were followed by a thousand youths mounted on Nicæan horses, succeeded by three thousand others on horses, not indeed of the Nicæan breed, but the finest which the other regions of Asia could produce, all adorned with gold trappings, and wearing gold crowns. A thousand of the king's friends and relations, arrayed in the most sumptuous dresses, followed next on horses still more splendidly caparisoned than the former: to these succeeded the body-guard of the kings of Syria; a band of four thousand horsemen, clothed in purple robes interwoven with gold. This part of the procession was closed by a hundred and forty-two chariots, richly painted and gilded, drawn some by six and some by four horses abreast.

That part of the procession which related to religion was ushered in by eight hundred youths, in the flower and bloom of their age, bearing crowns of gold. These walked before

the statues of the Syrian and Greek deitey borne aloft by men most magnificently attired; after whom immediately followed a thousand pages, each of whom carried a silver vessel, the least weighing a thousand drachmas. The king's own pages, amounting to six hundred in number, came next, carrying vessels of gold; and, after them, two hundred virgins, bearing gold chalices, filled with scented waters, with which they liberally sprinkled the spectators. In the rear of the procession were borne eighty litters with pillared feet of massy gold, on which sate as many women, probably the wives of the sovereign, superbly decorated with gold and jewels; and, after them, five hundred more, probably his concubines, with pillared feet of solid silver.

The sports and games commenced when the procession closed, and afterwards the banquet was served up on fifteen hundred tables, at which an innumerable company partook of the rarest delicacies in viands and wines which ransacked Asia and Europe could furnish. In the spacious banqueting-hall were placed fifteen vast basons of gold, which were filled with unguents of the most expensive kind for the use of the guests; and the king himself, with great affability, attended in person upon

them, arrayed in his royal robes, and wearing the diadem of Syria.*

With respect to Lysimachus, the third great sharer of the empire of Alexander, after a long train of varied events fortunate and disastrous, he himself was, at an advanced age, slain in a battle with Seleucus Nicator, who made himself master both of his dominions and treasures, which were immense, and deposited at Sardis. Cassander, also, the fourth who succeeded to Alexander's hereditary kingdom, was too deeply engaged in perpetual foreign contests with Antigonus, Demetrius, and other rivals, to allow of his giving any of those magnificent entertainments, by which an adequate idea may be formed of the wealthy spoils which he acquired; but a most ample and complete view of the wealth that flowed from plundered Asia into the treasury of Macedon may be obtained, by adverting to the prodigious treasure of every description found in the palace of Perseus, by Paulus Æmilius, when in the year 167 before Christ, he conquered that kingdom, and converted the illustrious country that gave birth to Philip and to Alexander into a province of the Roman empire. These treasures which were displayed in a public triumph decreed

* Athenæus, lib. v. cap. 4, p. 194, 195.

Æmilius, amounted to such an immense sum of coined money and bullion, and so glutted Rome with gold and silver, that, in consequence of it, no taxes were levied upon the Roman people for the support of the republic till the consulship of Hirtius and Pansa, a period of one hundred and twenty years, notwithstanding it was all that time engaged in carrying on expensive wars in almost every quarter of the known world. While the reader is informed of this circumstance, how must his indignation be excited against that, in this instance, barbarous race of conquerors, for permitting the wretched father, after having been dragged in triumph through the streets of Rome, to perish by the pangs of famine in a common jail. That indeed was the fate of the father! But harder still the doom of his infant sons! the first of whom died (possibly of a broken heart) some time before his miserable parent; while the other, though bearing the august name of Alexander, was denied the education and accomplishments suitable to his noble birth, and finally attempted to have his high spirit broken, by being placed out, by this generous and grateful republic, to the degrading occupation of a joiner or turner.

The particulars of the splendid triumph decreed Æmilius, for his important conquest of

Macedon, are minutely detailed by Plutarch, with an extract from which I shall close this extended account of the dispersion of the spoils obtained by the irruption of the Greeks into the Higher Asia.

The celebration of this triumph, the grandest that Rome ever witnessed, took up the space of three days; the first of which was wholly occupied by the procession of two hundred and fifty waggons, loaded with captives, and the beautiful productions of the most celebrated artists of Greece, paintings exquisitely finished, statues that seemed to speak, and all the other rare and sumptuous ornaments found in the palace of the Macedonian sovereign. On the second day were displayed the various kinds of arms worn by the Macedonians and the conquered Greeks, their allies, consisting of helmets, shields, coats of mail, javelins, and spears, the former mostly of brass, the latter of steel, all highly polished for the occasion, and glittering in the beams of the sun. Amidst these, the splendid accoutrements of the renowned Macedonian phalanx, in a more particular manner, excited the interest and admiration of the Roman people, while they reflected on the vicissitudes of war, that often obscure the glory of the proudest conquerors. The recorded feats of that once-invincible band rushed

upon their memories, and the very clashing of their armour struck the gazing throng with awe and dismay. After this display, they were feasted with a spectacle which gave birth to very different sensations; it was part of the contents of the treasury of the subjugated kingdom, the silver currency of Macedon, borne by three thousand men, in large vases that held each the amount of three talents, and every one of which required four men to carry it. The number of the vases were seven hundred and fifty, and therefore the total sum amounted to two thousand two hundred and fifty talents, in coined silver only, while a far greater amount in bullion followed in the form of elegant vases, cornucopiæ, goblets, phials, and cups of all sizes, of which the distinguishing excellence was not so much that they were silver, but that they were the work of Greek artists, equally admirable for the sublimity of the design and the beauty of the execution. The exhibition of the golden spoil was reserved for the last and most splendid day of the festival; and the order of the march on that day was as follows:

It was ushered in with a full chorus of trumpets, sounding notes not such, says our author, as were generally heard on these public solemnities, sprightly and festive, but notes of the

more martial and animating kind, such as rouze the soul of the young warrior, bring the blood into his glowing cheek, and drive him, in an agony of transport, on the terrified enemy. The band of trumpeters was followed by a hundred and twenty oxen, with gilded horns, and decorated with garlands for sacrifice; these were led by a train of young men, adorned with sashes curiously wrought, and bearing the sacrificial instruments, who were accompanied by children carrying pateras, some of silver and some of gold. After these came, as on the preceding day, three thousand soldiers, who carried the coined money in gold in seventy-seven vessels of three talents weight; which, estimating the amount according to the proportional value which gold then bore to silver, which may fairly be stated as one to twelve, and would, probably, in that early period of the Roman empire, be under-rated at the decuple, the general rate of calculation, swells the total to an enormous sum, such as Rome till then had been a stranger to. The bullion, or gold plate, was next displayed; and first, was borne an enormous article of sacred pomp weighing ten talents, called the *consecrated phial*, made of solid gold, and set with precious stones. The drinking vessels that bore the name of Antigonus, of Seleucus, and of

Thericles, because either used by those heroes or devoted to their memory, and all the costly utensils of gold that decorated the table and side-board of the luxurious Perseus, consisting of dishes, vases, and goblets, to an immense amount, were next exhibited in long and brilliant succession. After these, came the chariot of the captive monarch, in which was seen his sumptuous armour, and on the top of which glittered his ravished diadem. The infant-children and their attendants followed, a spectacle that melted the most obdurate hearts; and last was seen the unfortunate king, arrayed in sables, and having the appearance of a man bereaved of his senses, through the magnitude of his misfortunes and the severity of his sufferings. But all momentary impressions of compassion were chased away from the breasts of those barbarous victors, by the splendid pageants that succeeded, which consisted of four hundred crowns of gold, that had been presented to Æmilius by the cities of Greece and Asia Minor, as tokens of their submission to his arms, or veneration of his virtues. The magnificent triumphal car of that conqueror succeeded, on which he sate exalted in a robe of purple interwoven with gold; his brows crowned with a chaplet of laurel, intermixed with gold leaves, holding in his hands

a branch of that tree. The procession was closed by the whole of his numerous army, who marched after the chariot of their general, waving on high branches of laurel, and rending the air with songs of triumph and shouts of victory.*

This supply, as we have hinted, glutted for the present the avarice of Rome; but with her luxuries increased her necessities, and the thirst of plunder, not less than the love of glory, henceforth, stimulated her generals to those daring enterprizes which finally made Rome, in her turn, the mistress of the world. The wealth of ruined Carthage, and, in consequence, the undisturbed possession of the Spanish mines, swelled her treasury with exhaustless stores. The two Scipios, denominated from their conquests Asiaticus and Africanus, poured in upon them, in a full stream, the accumulated treasures of those respective regions; the former, after the conquest of Antiochus, paid into that treasury bis millies, which Arbuthnot states to be in sterling money sixteen hundred thousand and odd pounds;† but this is a trifling sum compared with the vast mass of treasure brought in by Cæsar, who, Plutarch assures us, after his extensive conquests, added to her stock,

* Plutarch in Vita Æmilii.

† Arbuthnot on the Revenues of Rome, p. 191.

at once, sixty-five thousand talents; above twelve millions and a half English.*

A still more magnificent idea may be formed of the treasure annually drawn by Rome from her Eastern conquests, from what we read in Plutarch, that Anthony made Asia pay, at once, ten years tribute, amounting to twenty myriads of talents, or £38,750,000; the tenth of which is £3,875,000. and therefore gives us the exact tribute for one year.

The effect of the introduction of so much wealth into the capital, was an unbounded licentiousness in its inhabitants; who, in their magnificent entertainments and sumptuous mode of living, far surpassed the princes of Asia itself; for, we soon after find them sleeping on beds of gold and ivory, quaffing the rich wines of Chios and Falernus out of gold and silver goblets, and riding in carriages shining all over with those bright and precious metals. To supply this unlimited extravagance the governors of these provinces, whence they were principally obtained, as we learn from Cicero against Verres, committed the most unheard of extortions; while the most shameless corruption pervaded every department of the state, and the most infamous crimes polluted the whole body of the citizens. Indeed, how was

* Plutarch in Vita Cæsar.

it possible for the stream to be pure when the fountain itself was so deeply contaminated? When we find a Vitellius consuming between seven and eight millions a year on entertainments, and a Caligula expending above eighty thousand pounds sterling on a supper, we cannot wonder at the tragedian Clodius Æsopus lavishing on one luxurious dish 600 *sestertia*, £4,843. 10*s*.* or the young spendthrift, his son, treating each of his guests, after dinner, with a superb cordial, in which a costly pearl had been dissolved.† The wealth of Crassus was proverbially great, and amounted to £1,614,583. 6*s*. 8*d*.; but far greater was that of Pallas, the freed man of Claudius, for it was valued at £2,421,875.; but both were exceeded by that of Lentulus, the augur, who was worth *quater millies*, or £3,229,166. 13*s*. 4*d*. Even poets and philosophers, in those golden days, amassed vast fortunes; for Seneca, in four years, acquired *ter millies* £2,421,875.; and, according to Servius, in the life of Virgil, that poet was worth *centies* H. S. or £80,729. 3*s*. 4*d*. This sum, however, though great for a poet, was not thought sufficient to support existence by a pampered Roman senator, since the famous Apicius, after spending in culinary delicacies *millies* H. S. or £807,291. 13*s*. 4*d*. and squan-

* Pliny, lib. x. cap. 60. † Ibid, lib. xxxv. cap 12.

dering, besides, the amount of immense grants and pensions, on casting up his accounts, finding he had only this exact sum remaining, poisoned himself, that he might not perish by the severer pangs of famine.

In their dress and furniture they were equally expensive; for Lollia Paulina, the great beauty of Rome in the time of Caligula, and on that account compulsively advanced to his bed, when full-drest, constantly wore jewels of the value of £322,916. 13*s*. 4*d*. and the price for rich Babylonian *triclinaria*, coverlids or carpets for their dining-beds, was £6,458. 6*s*. 8*d*. Nor could their houses themselves be of mean fabric or decoration; since that of Crassus was valued at *sexagies*, H. S. or £43,437. 10*s*. while that of Clodius cost *centies et quadragies octies*, or £119,479. 5*s*. 4*d*.* Those houses were externally cased with marble, and had marble pillars to support the lofty ceilings; they were internally decorated with rich tapestry; with costly hangings of Tyrian purple; with urns and statues exquisitely sculptured and polished, and paintings of the most beautiful design and brilliant colours; fountains of variegated marble played in their cœnacula, or great banquetting-rooms, cooling the air and refreshing the guests, who dined off gold plate, served up

* Pliny, lib. xxxvi. cap. 15.

on tables overlaid with silver, and reclined on sofas sustained by legs of ivory, silver, and sometimes even gold. They were also uncommonly splendid in the article of lamps, which were often fabricated of the most precious materials, and in which they burned the most costly and fragrant oils. The immense wealth that flowed by so many various channels into Rome was not all consumed in that city: great quantities were carried away into remote provinces by the numerous and successive governors, and other men of consular and prætorian dignity, who finally settled there, with their families, in voluntary or compelled exile. A very considerable portion, too, was, in the infancy of the republic, transmitted to support and pay the numerous armies constantly stationed in Gaul, Germany, Britain, and other countries, where gold had not before abounded; still, however, by far the greater part was swallowed up in the deep vortex of Rome itself; and it is on record, that Tiberius left in the public treasury *vicies septies millies*, £21,796,875. 3*s*. 4*d*.* The emperor Caligula, his successor, delighted in rolling himself about, in all the insatiable lust and pride of avarice, in immense quantities of gold coin, spread abroad on the spacious floor of his palace. Yet was this

* Plutarch, in Vita Tiberii.

insane cupidity presently succeeded by as wild extravagance, in throwing down money by handfuls, from a high tower, among the scrambling populace, and this continued for many days together, as well as at entertainments; wherein every article, not only the dishes, but the viands also, though bearing the form of meats, were of solid gold; the fictitious meats and golden dishes being afterwards distributed among the guests.* Nor was it only for human beings that he provided this species of golden banquet; his favourite horse, whom he denominated *Incitatus*, must also share the sumptuous repast. The stable of that animal was formed of fine marble: his manger was of ivory; he wore a collar of rich pearls round his neck, and his caparisons were of Tyrian purple. Thus splendidly accommodated, it seems but consistent that this prince of a horse should be regaled with equal magnificence; he, therefore, was fed with gilded oats, and drank the most costly wines out of golden chalices. In these and similar absurdities, this frantic tyrant, this alternate miser and prodigal, in the two last years only of his short reign, is reported to have squandered away eighteen millions of the public money.

However prodigious were the sums expended

* Suetonius in Caligula, cap. 29.

by the emperors of Rome, they were soon reinstated in the treasury by their absolute power and boundless rapacity; and the reign of Claudius exhibits an instance of three persons his freed men and chief ministers, Narcissus, Pallas, and Calistus, who are said to have amassed more wealth than Crœsus and all the kings of Persia and of the empire, and to have been, in their delegated governments, equally rapacious and profuse; keeping their weak and timid sovereign in the chains of dependance and poverty. But whatever sums avarice might have hoarded, or extortion obtained, were dissipated by that monster in human shape, Nero, in the gratification of his unbounded lusts, and in the erection of that stupendous structure, called his *Golden Palace*, from the vast profusion of that metal with which it was adorned; the roof, the walls, the galleries, the saloons, all glittering with gold, ivory, and precious stones. We may form some judgment of the immense sum consumed in the building this palace from what we read in Suetonius, viz. that Nero not having finished it, the first order which Otho, when he became emperor, signed was for *quingenties*, H. S. or fifty millions of sesterces, to complete it; which, reduced to pounds sterling, amount to £403,645. 16*s*. 8*d*.*

* Suetonius in Otho, cap. vii.

The enormous sums spent by the imperial glutton Vitellius on his sumptuous banquets, repeated four times a day, have been already specified, and apparently justify the strong assertion of Josephus, that, had he lived much longer, the revenues of the whole Roman empire would scarcely have been sufficient to furnish his luxurious table.

After exhibiting to the reader this faithful picture of the great wealth and prodigality of the Roman people under the early Cæsars, the conquerors of ravaged Asia, there is no occasion for our extending the view farther, or enumerating all the unbounded extravagance of their successors. During the ambitious contests that gradually weakened, then divided, and finally subverted, that empire, the precarious state of all property, but particularly that species of it which consisted in gold and silver, coined or in bullion, every where sought for with avidity by the different usurpers, to pay the armies which they respectively brought into the field, occasioned an immense quantity of treasure to be buried all over Italy underground in vaults and caverns, in gardens, in fields, and under the floors and walls of their houses. The jealous possessor, forcibly hurried away to the field of battle, expired on that field, and the important secret, in what obscure

spot it was concealed, perished with him. Nor was it only in Italy that they were thus buried; the distant provinces felt, through all their limits, the convulsion of the capital; and the inhabitants, harassed by ephemeral tyrants, committed their treasures to the too faithful bosom of the concealing earth. These have occasionally been dug up, through every succeeding century, in Gaul, Germany, and Spain, sometimes in very large quantities; and have well rewarded the toil of the fortunate husbandman, and the zeal of the exploring antiquary. A treasure of no less than eighty thousand large gold coin or medals, each of the value of six Roman crowns, was, according to Mountfaucon,* in 1714, discovered near Modena in Italy. They seemed all to have been struck in very early periods of the Roman grandeur, and the least antique of them were those of Julius Cæsar and the Triumvirate. Particular reasons induced Mr. Fontanini, the correspondent of Mountfaucon, who transmitted him an account of the discovery, to suppose these medals belonged to the military chest of the army collected by Lucius Antonius and Fulvia against Augustus. The treasures of Roman money also dug up in France, Germany,

* See the Supplement to Mountfaucon's Antiquities, book v. p. 329.

and Spain, during the middle centuries, were amazingly great; and during the failure of the ancient sources of wealth, in part supplied the quantity necessary for carrying on the commercial intercourse of Europe.

Before we conclude this Dissertation on the treasures of the ancient world, it is necessary we should again advert to those Asiatic regions whence we commenced our survey, and where, especially in India, the same pernicious practice of burying money in vast quantities has immemorially prevailed. And here we may remark, that, although in the vast sums of coined money at different periods dug up in Europe, the overflowing wealth of the Roman capital may, in some degree, be accounted for; yet, as immense treasures must have still remained dispersed over the extensive provinces of Asia, which never found its way into Europe, hoarded in the coffers of the miser or concealed in the vaults of the palaces of the kings and satraps of the East, far more remains still unaccounted for, or how comes it that such a slender stock of Asiatic coins is to be found in the cabinets of those affluent curiosi, who have spared neither toil nor expense to search for and procure them? Of Darics, and Philippi there are very few indeed: of the immense heaps of money coined by the Ptolemies, and the other Greek sove-

reigns who succeeded Alexander, a very moderate proportion also has reached posterity. India, thou avaricious glutton, whose rapacious jaws, from the first of time, have swallowed the gold and silver of the world, it is thou that hast caused this dearth; confess thy treachery to the cause of medallic science; they have gone to swell the magnificence of thy pagodas, and, without the least regard to the grandeur of the design, the majesty of the character impressed, or the unequalled beauty of the execution, thy refiners have melted them down in their crucibles to an unanimated mass, of value only proportioned to its weight.

On the plains of India, also, not less than on those of Europe, are supposed to lie buried treasures, principally in bullion, to an incalculable amount, deposited there during the ravages and oppression of successive conquerors through at least eight centuries of anarchy and tumult; I mean, from the 7th century to the mild and peaceable reign of Akber. These are now and then, though rarely, discovered, and sometimes Greek coins, probably of high antiquity, as the Greeks of Caria and other maritime countries visited the coasts of the peninsula almost as early as the Phœnicians themselves. Mr. Chambers, in his account of the ruins of Mavalipuram, written in 1784, acquaints us, that he was

informed by the Kauzy of Madras, that, some years previous to that period, a RYOT, or husbandman, in ploughing his ground, had found a pot of gold and silver coins, with characters on them which no one in those parts, Hindoo or Mahommedan, (therefore, plainly, neither Arabic nor Sanscreet,) was able to decipher. That the Kauzy, however, at the same time informed him, all search for them, then, would be in vain, for they had doubtless long ago been devoted to the crucible, as, in their original form no one there thought them of any value.* The extensive plains of Tartary are, also, supposed to contain inexhaustible stores of treasure buried by the Arab and Tartar hordes, who range over those wild solitudes, during either their ancient implacable contests with each other, or the invasion of the Parthians and other hostile nations combined against them.

With respect to India, independent of the domestic statues, which, it has already been observed, it was customary with the ancient Indians to form of the precious metals in fusion, we are well assured that all the great pagodas of India had complete sets, amounting to an immense number, of the avatars and deities, which they would probably deem degraded by any baser metals or meaner substance than gold and silver,

* Asiatic Researches, vol. i. p. 158. Calcutta, quarto edition.

except in those instances in which their mythological superstition ordained that the deity fabricated should be of stone, as in the instance of Jaggernaut, which Captain Hamilton represents as a *pyramidal black* stone, (in the same manner as the ancient Arabians fabricated their deity, though of a *square* figure, to mark his perfection, while the *darkness of the stone* indicated the obscurity of his nature,) with, however, the richest jewels of Golconda for eyes; and, in that of Veeshnu, in the great bason of Catmandu, in Nepal, sculptured in a recumbent posture, and of *blue marble*, to represent the primordial spirit, at the commencement of time, floating on the *cærulean* surface of the chaotic waters. In the Ayeen Akbery there is a very curious chapter on the great skill of the Indian artists in working in gold and jewellery, in which it is expressly affirmed, that the AVATARS are frequently made of gold and silver;* and, since, if completely represented, the figures must be numerous, great quantity of those metals must have been consumed in their fabrication.

The custom of burying every thing most valuable at the approach of an invader is so ancient and so general in Hindostan, that there can be no doubt of many of these costly appendages of the ancient rich pagodas having

* Ayeen Akbery, vol. i. p. 242.

been thus disposed of. I have, myself, seen numerous fragments of these avatars and deities, that have been dug up in fields and gardens, cast in bronze and other metals; and, if they buried these of inferior metals, they undoubtedly would, with still more anxious care, those of the more precious kind. It has also been an immemorial practice in India to throw gold, precious stones, and other sumptuous articles, by way of offerings, into the Ganges, Jumna, and other great rivers, nearly all of which are regarded in a sacred light by that superstitious people; and, therefore, the sandy beds of those rivers may be justly considered as mines of treasure, and reckoned among the richest that Asia affords.

My principal concern, in these Antiquities, being with Hindostan, before I return to the consideration of the state of Europe, and its pecuniary wealth in those times, I shall historically notice the successive plunderers of that empire, after Mahmud, of Gazna. That scourge of India died in the year 1028, of our æra; Gengis appeared first as a warrior on the plains of Asia towards the commencement of the 12th century; but his conquest of the brave Gelaleddin, on the banks of the Indus, neither secured him the sovereignty of India, nor put him in possession of that prince's

immense treasures; for, Gelaleddin consigned those treasures to the Indus, whence a considerable portion was fished up by the avaricious victor. The sources of abundant wealth, however, were by no means wanting to a despotic prince, great in council and vigorous in arms, whose empire is described, by M. Petit de la Croix, to have been greater than that of Alexander or Augustus, extending, from east to west, more than eighteen hundred leagues, and more than a thousand from north to south.* Great indeed that wealth must have been, since we find this monarch making public banquets that lasted an entire month;† and the officers of his army riding on saddles of gold, and glittering with precious stones. But the luxury of the Tartars had not yet reached its zenith; it was exemplified in its full splendour by Timur, his descendant, in the beginning of the fifteenth century, at a feast (which he made on a delightful plain called CANAGHA, *or the treasury of roses,*) at which, says an author not given to exaggerated relation, was exhibited such a display of gold and jewels, that, in comparison of them, the riches of Xerxes and Darius were trifling. There can be no doubt but that the greatest part of the wealth thus displayed was obtained in the plunder of

* History of Gengis-Khan, p. 2. † Ibid. p. 353.

India: and, in the account of Timur's capture of Delhi, in the first volume, I have already enumerated a portion of the treasures which he found in that city, of which, I observed, some judgment might be formed from the immense quantities of precious stones, pearls, rubies, diamonds, gold and silver vessels, money, and bullion, carried away by the army; that even the Indian women and girls were adorned with a profusion of precious stones, and had bracelets and rings of gold and jewels, not only on their hands and feet, but also on their toes; and that of those precious ornaments every individual had secured so ample a store, that they refused the incumbrance of more, so that vast heaps of various plunder of inestimable value were left behind.

Here then we see collected into one central spot all the remaining mass of Asiatic wealth which either flowed not into the hands of the Romans, or was transported back by commerce, and opulent governors, from that capital. In about a century from this period America was discovered, and opened to the daring warrior and adventurous merchant new and invaluable sources of wealth; which, being exported by various channels to the Eastern world, recruited the treasures of Persia and India, exhausted by the repeated ravages of Mohammedan con-

querors. But since that important discovery may be looked upon as the commencement of a new æra in riches and in commerce, the incidents arising from it do not properly come under our survey in a Dissertation on the wealth of the *ancient* world. Till that discovery took place, the great marts of Europe possessed but a very scanty portion of gold and silver; for, the jealous avarice and gloomy bigotry of the Mohammedans, in whose hands now centred the whole trade of Asia, had combined to shut out the European merchants from the rich port of Alexandria, and other maritime cities of the East. During this interval, however, a very seasonable supply of gold and silver bullion was fortunately met with in the mines of Germany, first discovered and wrought, according to Dr. Brown, about the year of Christ 700; traditions on the spot having fixed the working of that of CHREMNITZ, the principal and most productive, several English miles in length, to that period. The rigid maxims that urged the Mahommedan despots of the East to exclude from all participation of the Indian commerce the Christian traders, being afterwards somewhat mitigated, Europe received, through the medium of the Genoese and the Venetians, an additional influx of the precious metals produced on the coast of Africa and the regions

bordering on the *Aurea Chersonesus*. Still however, in the great trading cities of Europe, gold and silver were comparatively scarce, and continued so, till a series of success, as unexpected as unmerited, opened to the Spaniards the vast storehouses of these metals in America, whence the golden deluge has never since ceased to flow into their ports; and, being thence diffused through the courts and palaces of Europe, has given them the appearance of Asiatic splendour, and fixed on the heads of her august sovereigns diadems more brilliant than those that anciently sparkled on the brow of the great Shah of Persia, or the magnificent Mogul of India.

END OF THE DISSERTATION ON THE IMMENSE TREASURES IN BULLION AND COINED MONEY OF THE ANCIENT SOVEREIGNS OF ASIA.

A DISSERTATION ON THE LITERATURE OF THE ANCIENT INDIANS.

A
DISSERTATION, &c.

CHAPTER I.

General Account of the SANSCREET LANGUAGE, *Grammar, and Alphabet.—The high Antiquity and wide Diffusion of that Language over the Eastern Region of Asia.—An Investigation of the* SCIENCES *of the Brahmins, not hitherto discussed in the Indian Antiquities.* — ASTRONOMY, *necessarily cultivated, in the remotest Periods, by a Race devoted to Agriculture, and immemorially addicted to the* SABIAN SUPERSTITION.— *A retrospective Survey of the great Outlines of this Science, as anciently known in India.*—GEOMETRY *proved to have flourished among them, from its connection with the former Science in its advanced State, as well as from their massy Style of Architecture, &c. &c.*—MEDICINE,—*the Devotion of the ancient Indians to* BOTANICAL *Researches.*

induced an intimate Acquaintance with that Branch of the Science. — The Necessity of providing Remedies against the Bites of Serpents, and other noxious Reptiles abounding in India, promoted their farther Progress in it. — The Sanscreet Treatises on Medicine consist principally of Receipts preserved from Age to Age, and carefully handed down from Father to Son.—The Ancient Indians proved to have been not ignorant of Anatomical Dissections, though regarded with Abhorrence by the modern Brahmins. — Low State of the Science among the latter. — CHEMISTRY, *— a Knowledge of this Science, essentially important in various Branches of Indian Manufactures; proved in their* AGNEE-ASTRA, *or Fire-Weapons used in Battle; as well as other warlike Instruments employed by a People whose second Tribe is entirely military.*

THE doctrine that asserts the derivation of all the nations of the earth, however widely and variously dispersed, from one grand parent stock, according to the hypothesis adopted throughout these volumes,— a doctrine equally consonant to the voice of Scripture and the annals of India,—implies that, in the remote period previous to the dispersion of the human race, they used, in common, one primæval

language, *radically* the same, and, at the confusion of Babel, only varied in the mode of its pronunciation; in other words, that it was a confusion of *the lip*, and not an alteration of language, which took place on that catastrophe; a *labial failure*, as Mr. Bryant judiciously expresses himself,* which, in effect, proved sufficient to frustrate their impious design in rearing that mighty fabric. The vestiges of this primordial language, in every dialect of the ancient world, are clearly traced in the elaborate work of M. Court de Gebeline. Sir William Jones, also, in various parts of his profounder essays, unequivocally assentsd to the prevalence of one primary tongue throughout the early branches of the Noachic family, referring even the sublime invention of letters, and the origin of astronomy itself, in which science it appears extremely probable the celestial asterisms were first designated by the *letters of the alphabet*, to the children of Ham in Chaldæa: "The Sanscreet language, he observes, whatever be its antiquity, is of a wonderful structure; more perfect than the Greek, more copious than the Latin, and more exquisitely refined than either, yet bearing to each of them a stronger affinity, both in the roots of verbs and in the forms of grammar, than could possibly have

* See Analysis of Ancient Mythology, vol. iii. p. 30.

been produced by accident; so strong indeed, that no philologer could examine them all three without believing them to have sprung from some common source, which, perhaps, no longer exists. There is a similar reason, though not quite so forcible, for supposing that both the Gothic and Celtic, though blended with a very different idiom, had the same origin with the Sanscreet; and the old Persian might be added to the same family.

"The characters, in which the languages of India were originally written, are called Nagari, from Nagar, *a city*, with the word Deva sometimes prefixed, because they are believed to have been taught by the Divinity himself, who prescribed the artificial order of them in a voice from heaven. These letters, with no greater variation in their form, by the change of straight lines to curves, or conversely, than the Cuthic alphabet has received in its way to India, are still adopted in more than twenty kingdoms and states, from the borders of Cashgar and Khoten to Rama's Bridge, and from the Seendhu to the river of Siam; nor can I help believing although the polished and elegant Devanagari may not be so ancient as the monumental characters in the caverns of Jarasandha, that the square Chaldaic letters, in which most Hebrew books are copied, were originally the same, or

derived from the same prototype, both with the Indian and Arabian characters: that the Phenician, from which the Greek and Roman alphabets were formed by various changes and inversions, had a similar origin, there can be little doubt; and the inscriptions at Canarah seem to be compounded of Nagari and Ethiopic letters, which bear a close relation to each other, both in the mode of writing from the left hand, and in the singular manner of connecting the vowels with the consonants."*

The idea of the Indians, as detailed above, is exactly conformable to that of Plato, and of many Christians, who suppose the first knowledge of letters to have been the result of divine inspiration, or *Deva Nagari*. We may remark, too, that, according to the above decision, the Cuthic, or Chaldaic, alphabet is the basis of all others; and thus again does Indian literature, in a striking manner, corroborate the Hebrew records, the most ancient copies of which are written in such a simple unadorned character, as incontestably proves their high, if not unrivalled, antiquity; in other words, that they were written in the language spoken by the Noachidæ. Diodorus Siculus, in fact, actually ascribes the invention of letters to the Syrians;† that term

* Asiatic Researches, vol. i. p. 425.

† Diodorus Siculus, lib. v. p. 390.

being understood, in its more extended sense, as often used by the ancients, to include Chaldæa and Assyria, in particular by Pliny, who refers letters to the Assyrians; and the oldest Syrian and Phœnician letters are allowed to have been the same. That is the peculiar character which Moses is thought to have used in writing the Pentateuch; and it is that in which the Samaritan, the oldest extant copy of it, is composed.

The Phœnicians, afterwards emigrating under Cadmus, carried letters into Greece; and the striking resemblance, both in form, sound, and arrangement, of the latter, with the former, indubitably establishes their origin. But, if they were not sufficient of themselves to demonstrate the Oriental origin of letters, an irrefragable proof is derived from the circumstance of the Greeks having retained, with very little variation, the original names of the letters thus imported into their country from Phœnicia. From Greece, the Pelasgic colonies carried the Cadmæan letters into Italy; evidenced also by the same resembling circumstances of fabrication, arrangement, and sound.

At what a remote æra, indeed, *letters* were used in Assyria may be deduced from the account sent to Aristotle, from Babylon by Calisthenes, concerning the series of astrono-

mical observations preserved by the priests in the temple of Belus,* and reaching back for a period of 1903 years from the time of its conquest by Alexander. Now Alexander's invasion of Babylon happened about the year, before Christ, 330, which makes the period, when those observations commenced, to have been little more than a century after the flood. They were written or engraved on bricks, burnt in the sun, which was probably the earliest rude tablet of the graphist, though afterwards he committed his thoughts to the more durable substance of marble, brass, and copper. Thus, according to Josephus, if any confidence can be placed in his report, the Pillars of Seth recorded the prediction of an inundated world; the stupendous sculptures, on what are called the *written mountains* of Arabia, are referred to ages of the most remote antiquity; the triumphs of Sesostris were blazoned, in every country which he conquered, on columns that seem to have been inscribed at once with alphabetic and hieroglyphic characters; and the Hebrew decalogue itself was engraved on two tables of stone. The Indians used all these methods of conveying their ideas to posterity. Inscribed pillars and engraved copper-plates have been discovered in every quarter of the empire; but

* Porphyr. apud Simplicium in Aristot. de Cœlo, p. 123.

the tablet in most general request among them has ever been the dried leaf of the palm-tree, many of which are fastened together, in long slips, and compose those books in which the sublime productions of the Indian muse have been for so many ages preserved. Diodorus farther informs us, in proof of the early cultivation of Assyrian letters, that Semiramis caused inscriptions, in the Syriac character, to be cut deep on the mountains of Bagisthan, and what, if the account can be depended upon, is still more to our purpose, that, on her meditated expedition *eastward*, she received *letters* written to her from an ancient king of India.*

To return from the consideration of the object inscribed to the letter designated.—The general conformity of the most ancient Sanscreet character with the square Chaldaic letter in which most Hebrew books are written, has been already noticed. Walton, in the Prolegomena to his Polyglott, has, in various instances, remarked the striking similarity between the old Hebrew and Persic dialect; and, in truth, Sir William Jones, in his Dissertation on the Persians, has confirmed all that Walton advanced on the subject, by avowing that the ancient Iranian, or Persian, and the Sanscreet languages are, in their original, the same;

* Diod. Sic. lib. ii. p. 127, 129.

" that hundreds of PARSI nouns are pure Sanscreet, with no other change than such as may be observed in the numerous vernacular dialects of India; that very many Persian imperatives are the roots of Sanscreet verbs; and that even the *moods* and *tenses* of the Persian verb-substantive, which is the model of all the rest, are deducible from Sanscreet by an easy and clear analogy."* The president farther intimates towards the close of this dissertation, that the language of the first Persian empire, which he proves to have been Cuthite, and governed by Cuthite princes, of whom Belus was the head, and the history of all of whom was carried, with the colonies migrating eastward, to India, was the mother tongue of the Sanscreet, and consequently of the *Zend* and *Parsi*, as well as of Greek, Latin, and Gothic; that the language of the Assyrians was the parent of the Chaldaic and Pahlavi; and that the primary Tartarian language, also, had been current in the same empire.† This having been the case, and the fact being proved from an authority so high and indisputable, can we wonder that the history of the ancient world, in the early post-diluvian ages, as detailed by Moses, should

* Asiatic Researches, vol. ii. p. 51.

† Asiatic Researches, vol. ii. p. 64.

be so well known to the ancient Brahmins, who used, both in speaking and writing, the same language with the patriarchs, and in their sacred books treasured up all the traditional dogmas and sublime theology of the Noachidæ. The allegorizing spirit of their descendants has, indeed, obscured its brightness and defiled its purity; but, tear off the mythologic veil, and between the Hebrew and Indian legislators a marked resemblance, in many material points, may be traced.

Thus deduced from various sources, and flowing through various channels, the stream of argument carries us back to the central point whence we originally set out; that of a *primæval language*, universally prevalent among the early branches of the family of Noah, and diffused with the first colonies through the habitable world; but, in the course of ages, as new events arose, as new governments were formed, and as new ideas poured in upon them, undergoing such material alterations and modifications, as scarcely to leave any vestige of its origin remaining, except the radices of some principal words in every dialect of it, by which the relation of the *secondary* to its primary tongue may be faintly recognized.

I have hitherto attended solely to alphabetic writing; to letters as the symbols of sound, not

to those of the hieroglyphic kind, which are properly the symbols of ideas and objects. The latter appear to have no connection with the Indian alphabet, whatever they may have with that of the old Egyptians or that of the present Chinese; the only people, besides the Japanese and Mexicans, who now make use of so complicated a system of conveying their ideas and perpetuating their sentiments. On the consideration, therefore, of that particular class of alphabet, there is no occasion that I should enter in any detail, yet, upon this subject, I cannot avoid remarking, that, if the hieroglyphic and symbolic character, used by the Chinese, be no proof of their descent from the Egyptians, upon which ground. M. de Guignes founded his arguments for such descent, by the same line of reasoning the hypothesis that makes them the descendants of the Indians, is very considerably weakened, if not wholly subverted. For, is it possible, that during the gradual migration of their tribes eastward, and at that early period, when the Sanscreet flourished in its full vigour, they should have lost all remembrance of their native tongue, either the vulgar Sanscreet dialect, or the elegant and polished Devanagari; and should have adopted, in the room of an alphabet already elaborately formed, and justly distinguished for its comprehensive utility, its

refined correctness, and the beauty of its arrangement, a vague and prolix system of symbolic characters composed of the forms or detached parts of the forms of animals and objects, inconceivably intricate in their combinations, and infinitely diversified in their number and signification? I am aware however that some learned men have endeavoured to fix a hieroglyphic stamp on many letters of the Hebrew, Arabian, and other Eastern alphabets; as for instance, that in the Aleph, which signifies an ox in Phœnician, is represented the head of the ox; the Beth, which, in the Hebrew, imports a house, the figure of such houses as are to this day used in Palestine-Syria, the foundation, the wall, and the flat roof; Gimel, the camel, whose tall figure, and long and curved neek, the form of that letter appears to represent; and, in the letters of the Arabian alphabet, the arms and implements of the tent of the ancient Arab-shepherd, as his drinking-cup, his hunting-horn, his battle-axe, &c. but all these suggestions are rather fanciful than just.

With respect to the Chinese themselves, once so proudly vaunted as the masters of Asiatic science, were it not for the high respect due to the decision of Jones, who assigns them an Indian descent, I should be inclined, on this subject still to adhere to the system of M. De

PAUW, who strenuously contends that the Chinese are the lineal offspring of the ancient Tartar race, who descended, in wild clans, from the steeps of Imaus, into the fertile plains of this more benign region, and consider the great resemblance instanced in the *thin beards*, *small eyes*, and *flat noses*, of the two nations, as evidence nearly incontrovertible. Another important objection seems to offer itself in the total difference of the structure of the two languages of China and India; the former consisting principally of *monosyllables*; that of the Brahmins abounding with words of many *syllables*, and delighting in compound epithets that often run through half a page.

To the preceding general remarks on Asiatic languages, I shall now subjoin such particulars, concerning the Sanscreet alphabet and language, as may be sufficient to afford the reader a proper conception of them, without entering into the wearisome and disgusting minuteness of a grammatical disquisition. The term Sanscreet, according to Mr. Wilkins, is compounded of the preposition *san*, signifying completion, and *skrita*, finished. It means, therefore, a language exquisitely refined and polished: but this must have been the effect of the unwearied diligence, and predilection for their native tongue, of the Brahmins; for, it could not have

been, in the first instance, when it bore a near resemblance to the square unadorned Chaldaic character. It is also, we have just observed, a very compound language, and delights in polysyllables.

The most ancient Phœnician letters, introduced into Greece by Cadmus, were but sixteen in number; about the period of the Trojan war, four more letters were added by Palamedes; and, many years after, Simonides, by adding four others, completed the Greek alphabet. The amount of the Egyptian alphabet, according to Plutarch, was twenty-five; and that of the Hebrew is twenty-two. But the Sanscreet alphabet apparently exceeds, in the number of its letters, all that ever were formed, consisting of no less than fifty. Of these, thirty-four are consonants, and the remaining sixteen are vowels. The Brahmins glory in this uncommon copiousness of the Sanscreet alphabet; but, after all, there is no solid reason for this triumph: of their numerous consonants nearly one half are said to carry combined sounds, and six of their vowels are merely the sorrespondent long ones to as many that are short; which reduces it nearly to a level with the other alphabets of the ancient world. Copious and nervous as the Sanscreet is allowed to be, the style of the best authors is still extremely

concise, sometimes even to obscurity; hence the innumerable sastras and commentaries on all their sacred and scientific books; and hence, it may justly be added, the unbounded influence of the Brahmins, who explain them as they please to their ignorant, but devoted, followers.

The four VEDAS, it is well known, are the great store-house of Sanscreet learning. They are said originally to have been but *three* in number, the fourth being supposed to have been composed in a period many centuries later than the other three. The argument advanced on this subject, in the Asiatic Researches, is two-fold. The first arises from the very singular circumstance of only *three Vedas* having been mentioned in the most ancient and venerable of the Hindoo writers; and the names of those *three Vedas* occur in their proper order in the compound-word *Rigyajushama*, that is to say, the *Reig* Veda, the *Yajush* Veda, and the *Saman* Veda. The second argument is drawn from the manifest difference in the style between the fourth, or *Atharvan* Veda, and the three before named. That of the latter is now grown so obselete as hardly to be intelligible to the Brahmins of Benares, and to appear almost a different dialect of the Sanscreet, while that of the former is comparatively modern,

and may be easily read, even by a learner of that sacred language, without the aid of a dictionary.*

The date of these venerable books goes so far back into antiquity, and that date is so well authenticated, that with every respectful deference to the opinions of those worthy and pious writers who contend that ALPHABETIC LETTERS originated with Moses, when he received from God the *Table of the Decalogue*, I am unable to subscribe to that opinion, though I most readily admit the language, in which that decalogue was written, to have been the oldest in the world, and probably imparted to man by inspiration, but at a much *earlier* period. I am bound faithfully to represent, so far as yet unfolded, the Hindoo sciences; and, on this subject, I must fortify myself with the observation of Sir William Jones, whom nobody will accuse, any more than, I trust, myself, of intended disrespect to the high character and functions of the Hebrew legislator, but who has declared it to be his firm belief, arising from both internal and external evidence, that the three prior Vedas are above three thousand years old;† and, to the YAJUSH VEDA, in par-

* Asiatic Researches, vol. i. p. 346, 347.

† On the Antiquity of the Indian Zodiac, in Asiatic Researches, vol. iii. p. 289.

ticular, he assigns the possible æra of 1580 years before the birth of Christ, which is nine years prior to the birth of Moses, and ninety before Moses departed from Egypt with the Israelites.* The first promulgation of the Institutes of Menu, he thinks, was coeval with the first monarchies established in Egypt or Asia; and he remarks a strong resemblance of them, in point of style and grammatical construction, with the VEDAS themselves. I shall not enter farther into the question, but leave every man to form his own opinion on the subject; and proceed to the consideration of what, by the industry of our learned countrymen, has been gleaned from those precious fragments of ancient Indian literature.

* On the Antiquity of the Indian Zodiac, in Asiatic Researches, vol. v. p. 4.

HAVING already, in various parts of these volumes and the Indian history, treated concerning many of the arts and sciences anciently most cultivated in Hindostan; in particular their style of ARCHITECTURF, when discoursing on the pagodas; their skill in SCULPTURE, when examining the figures of Elephanta; having given the entire history of their progress in NAVIGATION, in an express dissertation on that subject, so interesting to Britons, in the Sixth volume of these Antiquities; having, also, in the Commercial Dissertation, considered their MANUFACTURES, and the arts more immediately connected with the beautiful productions of the Indian loom; I conceive my duty to the public, on this point, already in a great degree fulfilled. Their literature and sciences open an immense field for discussion, and materials for the full investigation of them are still among the Indian *desiderata*. I request, therefore, in a particular manner, the exertion of the reader's candour in perusing the following Dissertation, as the mine of Sanscreet literature has been hitherto but

little explored; though I rejoice to hear there are rising in India many able and willing candidates for that arduous employ.

GENERAL PHYSICS.

In all retrospects upon Indian science and history, it will be observed that an uncommon degree of natural history is blended with it; and, in fact, their mythology is a compound of physics and metaphysics. Extensive, therefore, as have already been our disquisitions on that mythology, occasional references to it can with difficulty be avoided, because, in fact, there is scarcely an art or science which has not its respective *numen* presiding over it, who is supposed to direct the labours of the artists and the researches of the scholar. Even their theological speculations are, in a great degree, founded upon what they observed passing in the physical world. They saw a direct tendency in nature to dissolution; they therefore fabricated a *destroying deity*; but, as they also observed a power in nature capable of counteracting that tendency, the same fertile imagination, in consequence, conceived a *preserving deity*, his enemy and antagonist. Hence, probably, the true source of that rooted enmity immemorially

subsisting between the followers of Veeshnu and Seeva. Every element is, in fact, a personified God; the minerals of the earth, and the corals of the ocean, have their guardian genii; and a subtle spirit pervades and presides over even the humblest tribes of vegetation.

Much as hath already been said on the subject, yet, as it is ever a prominent object in Oriental literary research, I commence my inquiries with renewed investigations and summary retrospect upon their system of

ASTRONOMY.

I have ventured, in various parts of the two works before the public, to give a date to the Brahmin system of Astronomy nearly coeval with the flood; because, in whatever aboriginal country their ancestors were settled, whether in Chaldæa or Iran, that science was absolutely necessary to a race of men who seem, from the earliest times, in a peculiar manner to have devoted themselves to agricultural concerns; to a race not "fleshed in blood," or wandering wild over immense deserts, like the savage tribes of Scythia, but who, from their origin, seem to have associated in affectionate tribes, and been united by the strictest bonds of domestic inter-

course; a race who, for the most part, exist entirely upon the grains and fruits which the cultivated earth abundantly produces, and therefore must of consequence be supposed intimately acquainted with the *times* and *seasons*, the result of astronomical observation, most proper for that cultivation. I considered that system as containing a considerable proportion of ante-diluvian astronomy, concerning which; though all that can be advanced must be allowed to be nothing better than ingenious conjecture, yet, since the Indian nation seem always to have adhered so closely together as a people, and since Budha is said to have married Ila, Noah's daughter, it is most probable, that, among them, the remains of the ante-diluvian sciences flourished in a more perfect degree than among the other widely-dispersed branches of his family.

I have also strenuously contended for the existence of an older sphere, containing certain obsolete asterisms at present not to be found in the catalogue of modern constellations, as the Phalæna, the *wandering moth of night*; the Succoth Benoth, or *hen and chickens*; the Oblation, and others, alluded to by Mr. Costard in his Chaldæan Astronomy.*

The devotion of the Indians to this favou-

* Costard on the Chaldæan Astronomy, p. 67.

rite science, in the earliest periods, is farther proved by its intimate connection with the history of their most ancient sovereigns, who seem all to have been a kind of planetary deities; and the reign of the king and the revolution of the orb, as has often been before observed in these pages, to have been perpetually confounded in their wild mythological records. Hence I was induced to consider the sphere itself as formed by the united wisdom of the Patriarchs, exhibiting to us a rich volume of hieroglyphics, (the only mode of designating objects and ideas in those remote æras,) having an immediate allusion to the characters and events of the greatest importance to mankind; and consequently in a high degree illustrative of the history of man in the infancy of human government. Astronomy, indeed, could scarcely fail of flourishing in the highest vigour during the remotest periods in India as well as throughout all Asia, in consequence of the decided patronage afforded that science by Eastern sovereigns. From the foundation of their respective empires, the kings of Chaldæa and India cherished and entertained in their palaces the wise men and philosophers of their realms; and it must be owned, in return, that astronomical priests have in all ages been found too susceptible of royal favour, and have been

but too grateful in repaying their kindness, by flattering them with titles and honours more than mortal.

With respect to the ancient Indian astronomy, it is a vast system of *cycles* ascending by no very regular gradations from their SOOKLA-PAKSHA and CREESHNA-PAKSHA, or the *dark* and *bright halves* of the moon's orb; that is to say, in plain English, a *fortnight*, to millions of revolving years, lunar and solar, infinitely diversified, and alternately calculated by the rules of terrestrial and celestial computation. It is an endless labyrinth, to which the Brahmins themselves, from the lapse of time and the decay of science among them, seem at present to possess but a very uncertain clue; but, through which, as authentic information has hitherto arrived in Europe, we have already in great part toiled in the first volume of Indian history.

Whosoever will cast his eye upon a Hindoo sacred calendar will perceive a most decisive proof, how incessantly, in the most ancient periods, the Brahmin priests must have watched the motions of the heavenly bodies. All the long train of fasts and festivals rigidly prescribed that superstitious nation, in the VEDAS and other sacred books, is regulated by the position of particular planets in the heavens,

and the consequent benevolent or maligant aspects imputed to them by the mad votaries of astrological science, which then held in chains many of the wisest and most virtuous of mankind.

It will also be remembered, that the obligation to observe these rigid fasts and these ever-returning festivals was of no slight nature. The tremendous superstition that enjoined them on the timid Indian was implanted in his inmost soul, or rather was inwoven with his very constitution, engrosses the earliest habits of his life, and continues its influence over his latest. For even the most casual omission of the minutiæ of that holy ritual, he hears the thunder of Seeva rolling to overwhelm him; or, what is not less dreaded than the wrath of heaven, he sees himself reduced to the forlorn condition of a Chandelah, or outcast, to whom the elements themselves are hostile, and for whom neither heaven nor earth have any place of safety or repose. The baneful effects of this entire devotion of the Hindoos to the ceremonious injunctions of their religion are often recorded in the page of their history. Undertakings of the highest national importance have been abandoned, for some idle punctilio of this kind, at the instant when success seemed indubitable; and the Mahommedan generals taking advantage

of some, to them auspicious, day, when the Hindoo religion forbids the use of arms, have marched unresisted into their most wealthy and best fortified cities. Sonnerat, in particular, expressly asserts this fact concerning the AIDU POOJA, or *feast of arms*, which falls in October, and is holden so sacred, that, on the day of its celebration, the Hindoo will not take up arms to defend himself. He adds, that the general of the Soobah of the Deccan, who besieged Gingy, chose that day for the assault, being persuaded the garrison would not defend the place on that day, and he actually entered the garrison without meeting the least resistance.*

We have seen in Vol. VI. in what very remote periods the Indians had navigated the great ocean, since in the "Institutes of Menu," written twelve hundred years before Christ, provision is made for losses incurred by adventures at sea; and the circumstance of its being thus particularly mentioned, in a part of the grand legislative code, proves the antiquity of the commerce as well as the danger attending it. Now it is impossible for navigation to be carried on, to any extent, without a knowledge of astronomical science. A correct knowledge of the position in the heavens of certain stars,

* Sonnerat's Voyages, vol. i. p. 135, Calcutta edition.

uncommonly brilliant, with respect to the earth, was absolutely necessary to the mariner in directing the course of his vessel over the trackless ocean, whether to the shores of Egypt or Arabia, which countries, by the aid of the monsoons, they seem immemorially to have visited; the former, for the purpose of vending to that luxurious people the rich commodities of India; the latter, for those costly spices and aromatics which were foreign to their own delicious climate.

In farther proof of their early proficiency in astronomy, or rather that many interesting branches of that science originated among them, may be urged, what has already been intimated in the first volume of the Indian history, the circumstance of their being in possession of a table of LUNAR MANSIONS, in number twenty-eight, a mode of dividing the heavens unknown to the Greeks, and which, therefore, could not be borrowed from them. All the names of the asterisms, and all books on this subject, are written in pure Sanscreet, and consequently must have been long anterior to the age of Alexander, when its purity had declined. Their mode of designating these lunar mansions is by objects and animals perfectly novel and original, and in the Hindoo style; Indian conques, saffron, tabors, heads

of antelopes, gems, pearls, &c. The planets in their system, we have seen, are all personified, and invested with appropriate dresses and symbols, and are represented riding on animals, characteristic of their slow or rapid revolution in the heavens. Thus, it has been observed, the Sun is mounted on a lion, to mark the ardour and fierceness of his beam; the Moon on an antelope, to denote the rapidity of her progress; Mercury on a hawk, a bird whose soaring wing explores the highest region of æther, while its undazzled eye gazes stedfastly on the orb of day, shining in meridian splendour; Mars armed with a sabre, is borne on a war-horse through the heavens; Venus, the radiant harbinger as well of the opening as of the closing day, is mounted on a camel, an animal patient and indefatigable, that pursues his unwearied journey over trackless deserts and burning sands, early and late, before the sun rises, and after it has declined; Jupiter rides on a boar, a slow and sluggish animal, the emblem of his tedious revolution; and Saturn measures round the circumference of his vast orbit exalted on the back of a heavy unwieldy elephant. But of Saturn, or SANI, as in the old Sanscreet books he is denominated, there occurs in that system a very curious circumstance not

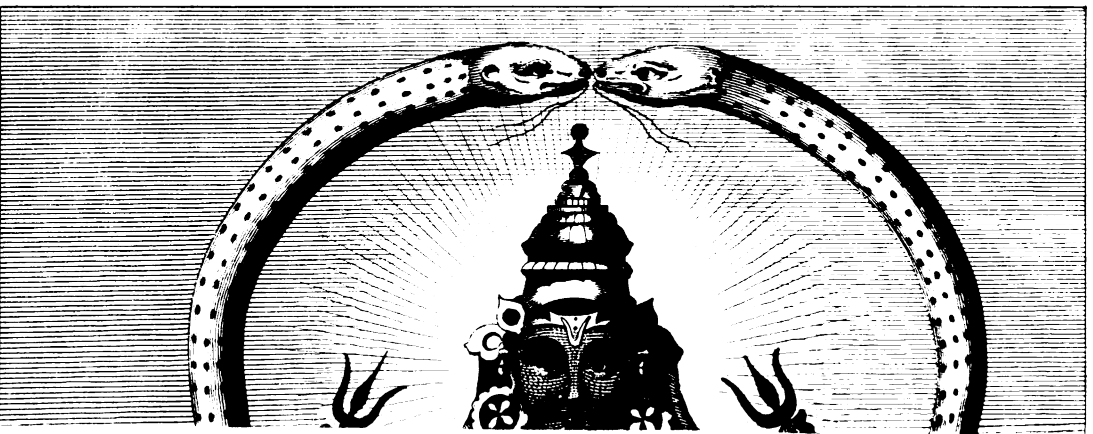
mentioned before, and which deserves the marked attention of the astronomical student.

Sani has already been described, from Sanscreet authorities, as a malignant planet, and he is metaphorically represented as the *slow-moving child of Surya, the Sun.* The Indians entertain dreadful apprehensions concerning him, and offer to him conciliatory prayers. He is depicted of a blue colour; he has four arms; he is mounted upon a raven; and is surrounded by two serpents, whose intertwining bodies form a circle round him.*

I have already intimated in a former volume, that the *circle* formed around SANI, by the intertwining serpents, was probably intended to denote his RING. I have since had the figure engraved for the reader's inspection and decision. It is impossible to ascertain the exact age of the pictured image in the pagoda from which the portrait was taken; but probably both are of a very remote age; for, the Indian pagodas are not fabrications of yesterday, nor in their conceptions and designs are they given to frequent vicissitude. Now, if Sani were thus designated in very ancient periods, the fact proves that they must, by what means can scarcely be conjectured, have discovered the phenomenon

* Sonnerat's Voyages, vol. i. p. 63.

SANI, OR THE PLANET SATURN,



To the Rev.d Stephen Demainbray, A.M. the above plate, illustrative of his favourite Science, in memory of early Friendship, is inscribed by T. M.


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of his RING ; for, what besides could that serpentile oval, enclosing the body of Sani, be intended to represent? That phenomenon, however, was not known in Europe till about the year 1628, when Galileo, with the first perfect telescope, discovered what he conceived to be two stars at the extreme parts of the planet; but which, in reality, proved to be the ANSÆ of that ring, the actual existence of which was afterwards demonstrated by Huygens and succeeding astronomers. The circumstance is not the least wonderful of those that occur in the discussion of Indian antiquities and literature. I have stated the fact, and engraved the image; I leave to abler judges the task of decision.

There is no occasion, however, to trouble the reader with farther *conjectures* on the high proficiency in astronomy of the ancient Brahmins, since indubitable proofs of their rapid advance in that science are to be found in the most ancient pagodas of Hindostan, all placed with such astronomical precision, as with their four sides constantly to face the four cardinal points. These were examined and found to be exactly thus situated by M. Gentil; and in this circumstance they resemble the pyramids of Egypt, probably the work of the same artificers; for, a variety of facts tends to strengthen the

hypothesis, that Egypt, or *Misra-sthan*, was colonized by the first Indians. On the roofs too and walls of many of these pagodas are deeply engraved the zodiacal asterisms. Various sets of their astronomical tables, of a very ancient date, imported into Europe by learned foreigners, have been deliberately investigated, and proved to give the true aspect of the heavens, and position of the stars, about the period they were formed. The tables of *Tirvalore*, in particular, brought to Europe and published by M. Gentil, merit the most attentive consideration. For, the grand conjunction which those tables tend directly to establish, of all the planets, except Venus, in the first degree of MESHA, or ARIES, with which their celebrated æra of the CALI YUG commenced, has been found, upon the calculation of the ablest astronomers of Europe, to be true, with the addition of an eclipse of the moon, from which their astronomical time is dated.* On an actual retrospective survey of the heavens, it appears that Jupiter and Mercury were then in the same degree of the ecliptic; that Mars was distant about eight degrees, and Saturn seventeen; and it results from that survey, that, at the time of

* Le Gentil, Voy. tom. i. p. 133. Bailli's Astronomie Ind. p. 110.

the date given by the Brahmins to the commencement of the Cali Yug, they saw those planets successively disengage themselves from the *rays of the Sun*. This is the representation of M. Bailli, that profound and accurate, though in points of theology, *sceptical*, astronomer; confirmed, in every instance, by the still more elaborate calculations of the learned Mr. Playfair, professor of astronomy at Edinburgh. While the romantic and extravagant boasts of the Brahmin chronologers, in respect to the epoch of creation, remained unrefuted, I *hesitated* to admit this decision of M. Bailli as valid evidence; but the nature of their wild chimeras in astronomy having been since frequently explained in the Asiatic Researches, and it being now well understood by *what kind of years* their calculations were regulated, I am willing to give every due credit to the laborious and learned researches of that profound astronomer, sacrificed to the guillotine by his perfidious countrymen. It is a circumstance not less astonishing, than this its early maturity in Hindostan, that so little genuine astronomy should at this day flourish in that degenerate country; and that the modern race of Brahmins should regulate their astronomical studies by the *rules*, without knowing the *principles*, that guided their

ancestors in cultivating this sublime branch of ancient literature.*

The epoch of this celebrated æra of the Cali Yug, which, according to M. Bailli, answers to midnight between the 17th and 18th of February of the year 3102 before Christ, thus scientifically adjusted by learned Europeans, may be admitted, because within the limits of the chronology of the sacred books that ought to regulate our belief in these matters; for, the first of February, 1790, exactly corresponded to the year 4891 of the Hindoo period of the Cali Yug; consequently above a thousand years within the Mosaic æra of the world. But there is no necessity for our allowing a similar latitude to wild speculations in that science which directly militate against it; and this is evidently the case when these tables refer us to observations pretended to be made when, according to them, the solar year consisted of 365 days, *six* hours, twelve minutes, and thirty seconds. In the time of Hipparchus, near two thousand years ago, that year was computed at 365 days, *five* hours, forty-five minutes, and twelve seconds. From Hipparchus, to the age of Ptolemy, the alteration in the length of the year was noted by the latter astronomer; and, from

* See Mr. Playfair on the Brahmin Astronomy, in Philosoph. Transact. Edinburgh. vol. ii. p. 136.

Ptolemy to our own, the decrease has been still more regularly observed. By European astronomers of the present day, it is reckoned at 365 days, five hours, forty-eight minutes, and fifty-five seconds. "Hence it would appear, (says an ingenious modern writer,) that there is a gradual decrease in the length of the year; and, if these calculations can be relied upon," (which they certainly cannot,) "we must conclude that the earth approaches the sun; that its revolution is thereby shortened; and that the tables of the Brahmins, or at least the observations that fixed the length of their year, must have been made 7300 years ago."* Retrogressive calculations have been probably made to suit that distant period, but certainly not actual observations; since it ascends far beyond even the Septuagint date of the creation, which, as the most extended, I set out with adopting, and the possibility of the advantage of the scientific exertions of the antediluvians; which, to obviate the objections of the sceptical philosopher, I have ever been willing in a certain degree to admit of, in the extensive survey taken, in these volumes, of the literature of their earliest post-diluvian descendants.

While I am bold to affirm that these are the chimeras of astronomers, I will not shrink

* Sketches of the Hindoos, p. 216. 1st. edition.

from my duty as the historian of the literature of India, by presenting the reader with an account of some actual observations, made in the most remote æras, that can scarcely fail of exciting astonishment, and *may* strike some prejudiced minds with disgust, as if on this subject, not less than the date of alphabetic writing in India, I was determined to oppose all established opinions concerning the origin and the progressive advance of science in the East; but, *magna est veritas, et prævalebit.* The evidence is of high authority, and deserves every credit; and let it be remembered that we are discussing the literature of one of the highest and most illustrious branches of the family of the father of the renovated world.

Passing by the age of Greek fable, Atlas, Chiron, and Musæus, the mere offspring of imagination, the oldest authenticated Greek observations of the heavens extend no farther back than the age of Thales, about 600 years before Christ; and these may be well supposed in that infancy of the science, extremely rude. Instructed in Egypt, that prince of philosophers taught the Greeks the true time of the EQUINOX and the exact length of the tropical year. Anaximander flourished about fifty years afterwards, and is said to have first made that important discovery, the OBLIQUITY OF THE ECLIPTIC.

But all this extent of science must have been well known to the Brahmins at least 600 years before; for, the Indian annals, made with the requisite precision, record an actual observation, that absolutely fixes the exact places of the solstitial points and the equinoctial colures, in the twelfth century before Christ; and it was by this observation that Sir William Jones was enabled to fix the age of Menu's Institutes to the same century.*

From a text of Parasara, an ancient Indian astronomer, which records the observation, it appears, that, between the period when he flourished, and Varaha, a more recent astronomer, who confirms it, and lived in the year 499 of the Christian æra, the equinox had gone back 23° 20′; that is to say, the southern solstice, which, in Parasara's time, was in the middle of ASLESHA, a lunar mansion, denoting the stars in the face and mane of the Lion; and the northern in the first degree of DHANISHTHA, a lunar mansion, meaning the stars in the arm of Aquarius; were found, in Varaha's age to be the former in the first degree of CARCATA (Cancer), and the latter in the first of MACARA (Capricorn);—in other words, about 1680 years had elapsed; and since, in demonstrative proof

* Sir William Jones in Asiatic Researches, vol. ii. p. 393: London, quarto edition.

of all this Sir William Jones has taken the trouble to present us both with the original Sanscreet text, and an exact literal translation of that text, not the least doubt can be entertained of the truth of a statement which does so much honour to the learning and industry of the ancient Hindoo race.

The doctrine of the seven revolving spheres through which the transmigrating soul must migrate before it can reach the abode of the supreme Brahme; the circular dance of the Brahmins, recorded by Lucian, and called, in India, the RAAS JATTRA, or sacred dance imitating the revolution of the planets round the sun; the positive assertion of Sir William Jones, that the works of the sage ACHARYA include a system of the universe founded on the principal of *attraction*, and the *central* position of that orb; and, also, that the names of the planets and zodiacal stars are found in the oldest Indian records;* afford abundant proof, that, if the ancient Indians were not absolutely the inventors of astronomy, they at least had arrived, in the earliest post-diluvian periods, at an unexampled point of excellence in that wonderful science. But having, in the first volume of the history, when considering the Indian sphere and zodiac, entered very

* Asiatic Researches vol. i. p. 430.

much at large into this subject; having shewn the striking similitude between the Chaldæan and Indian astronomical system, at least in its great outlines; and having in fact demonstrated that their spheres were the same, with a trifling difference only, in the designation of certain of the asterisms; it is unnecessary for me to dwell longer on this head of Indian literature. I therefore pass on to a subject very deeply connected with it, and in any advanced state of the science absolutely necessary to it.

GEOMETRY.

On the commencement of the Geographical Dissertation,* I had occasion to observe that the science of Geometry was, in all probability, invented in India. One reason urged by me in support of the observation, but by no means the strongest that may be adduced, was the frequent and wide overflowing of the great Indian rivers, not only of those regions where vast Deltas have been formed at their place of ingress into the sea, but of those in the more northern latitudes of Upper Hindostan, whose rapid and desolating current, rushing down from the Hindoo Caucasus, bore away the boundaries of the land they were meant to divide, and

* See Indian Antiquities, vol. i. p. 1.

confounded the property of the natives. The Nile over-spreads Egypt with a gentle and gradual advance of its fertilizing waters, but the rapidity and overwhelming violence of a torrent pouring down from Paropamisus, the Gauts, and other high mountains in various regions of India, would not fail to beat down and obliterate every barrier which man, in the infancy of agriculture, could erect against its rage; and, as the first settlements of his race doubtless took place in the Higher Asia, and nearest the region where the ark rested, I consider the long-contested question, whether the Indians or the Egyptians were the first inventors of this science, to be in consequence very much in favour of the former. But a stronger and still more conclusive argument, in favour of the latter position, seems to be the impossibility of otherwise exactly proportioning the rate after which every individual zemindar, or land-holder, was equally in the most early and the most recent periods of the Indian empire assessed, and which universally depended upon the quantity of ground possessed and cultivated by him. The ancient classical writers assert, that the tax paid to the government in India was the *fourth* part of the produce of the soil; but, upon Sanscreet authority, near two thousand years old, I can assert that it was at that

period, and probably previously to it, the *sixth* part only of that produce; for, to that purport, in the Sacontala, does the Emperor Dushmanta decisively express himself.* Similar accounts, I am aware, may be found in Herodotus and Diodorus Siculus concerning the mode of collecting the tribute in Egypt; but, throughout this work, both Egyptians and Ethiopians are considered as an emigrated race, originally Indians, and to the parent country, therefore, when customs are so strikingly similar, the honour of invention cannot with justice be denied.

As the Egyptians had with immense labour dug the vast lake Mœris, and other ample reservoirs for the waters of the retiring Nile against the period of drought; so also have the ancient Indians formed, by the nicest rules of geometrical proportion, in every quarter of their empire that required it, *square* tanks of prodigious magnitude for the same purpose. In their stupendous efforts in architecture particularly, the triangular pyramid, the circle, the square, and the cone, for ever occur in the internal or external parts of their temples. And by what means was it possible for such ponderous stones, as, for instance, those that crown the summit of the grand portal of Chillambrum, forty feet long, and five broad, to be raised to

* Sacontala, act. v. p. 53.

the altitude of one hundred and twenty-two feet, but by the aid of geometry joined to mechanics? From what other source has it arisen that the amazing colossal carved work and images in Salsette and Elephanta, of stupendous antiquity, are executed according to the rules of such just proportion as they are represented to be by Mr. Hunter and others who have accurately examined them? and that such lofty columns, richly adorned with mythological sculptures, are seen elevated to a vast height in every province of Hindostan? In respect to astronomy, it was absolutely necessary that they should be possessed of a very ample portion of geometrical skill to fix so precisely, as they have, the position of their pagodas in order that their four sides should face the four cardinal points; pagodas, many of them erected in the remotest periods of their empire; and to form those ancient astronomical tables mentioned above which have so highly excited the astonishment of the literati of Europe.

It was long supposed that the ten numerical characters of ARITHMETIC were the invention of the Arabians: that nation, however, only introduced them into Europe, and confess themselves obliged to the Indians for them, among whom they were immemorially used. A nation, indeed, so devoted to commerce, as

the Indians, could not carry on their concerns without this aid; and, while the polished governments of Rome and Greece were awkwardly using, for the purpose of enumeration, the letters of the alphabet, this wise and ingenious people, by the invention of the figures in question, were performing, with the utmost facility, the most complex calculations. Indeed, their adroitness in this respect has often been the admiration of foreigners, as a Banyan merchant, by the operation of memory only, and without pen or paper, is said to sum up his accounts with the greatest accuracy; and even the vulgar Indian, with his fingers, drawing the symbols of arithmetic in the sand, will go, with ease and celerity, through the most intricate numerical details. The art of ready computation was essentially necessary where the property was so various, where the annual revenues both of the sovereign and of many individuals among his subjects were so immense, and where such accuracy was necessary with respect to the *number*, *weight*, and *measure*, of the commodities trafficked in. Connected with geometry and arithmetic is the invention of the *balance*, a symbol early exalted to the zodiac by the Brahmin astronomers, and in all likelihood also the product of the genius of this commercial people. The advance of the

ancient Indians in mechanic science of every kind must, for the reasons above-mentioned, have been very early and very great; and, in fact, like the venerable fabricators of Stone-henge and Abury, they seem to have been in possession of some secrets in that science which have not been transmitted to their posterity.

The same species of injustice that would rob them of the honour of inventing the decimal scale, the Indians appear to have suffered in regard to ALGEBRA, which, though long attributed to Arabian ingenuity, is the undoubted fruit of Indian genius; for various treatises on this useful science, as well as geometry, are alluded to in Sir William Jones's Dissertation (the last which he wrote) on the Philosophy of India;* and, being in Sanscreet, they must necessarily be of an age far anterior to that of Archimedes, the great practical geometrician of Greece. With respect to the substance of these treatises, that is still among the Indian desiderata; though probably this will not long be the case, if Mr. Davis should fortunately have health and leisure to pursue the peculiar line of study which he has chosen for his province, and by which he has already been

* Asiatic Researches, vol. iv. p. 178, London, quarto edit.

enabled so successfully to elucidate the abstruse mathematical sciences of the Brahmins.

The great advance, also, which we shall hereafter see the ancient Indians had made in music, a science in which sounds are expressed by lines or chords accurately divided and arranged according to geometrical rules, exhibits an additional proof of their progress in this species of necessary knowledge. But what most of all proves their attachment to this science, as well as their exalted opinion concerning it, is, that, in their mysterious and hieroglyphic theology, they were accustomed to apply the figures and characters used in it to illustrate their ideas of the sanctity and perfection of the Deity. They transferred their geometrical speculations from body to spirit; and, from measuring terrestrial objects, they attempted to define subjects immeasurable, infinite, eternal. They compared the Deity to a CIRCLE, that most perfect and comprehensive of all mathematical figures, whose centre is every where but whose circumference is no where to be found; and in allusion to the ancient doctrine of a certain *plurality*, which it has been demonstrated in preceding pages they believed to exist in the divine nature, they designated it by the expressive symbol of an equilateral TRIANGLE. Hence the winged globes

that decorate the front of all the Egyptian temples, and the triangular columns in memorial of their sacred triad, at the entrance of most of the Indian pagodas.

MEDICINE.

To a minute investigation of the peculiar virtues and qualities contained in certain plants and herbs, the old Indians were naturally incited by the vast variety and beauty of those innumerable vegetable productions that cover the face of that fertile region. These in many places grow up spontaneously; many, applied to sacred uses, the ministers of religion reverently cherished; and many the hand of traffic diligently cultivated for exportation. Her rich spices and aromatics of every kind, her costly gums, and fragrant nards, of sovereign efficacy in the healing art, exceed all calculation in number and value.

Their beauty, number, and variety, indeed, could not fail of being most attentively marked by a race, who lived almost wholly in the open air; who ranged through vast forests, barefoot, in penances and in distant pilgrimages; or resided in delicious groves; and, if the scenes of the Sacontala represent them justly, who cultivated in delicious gardens the sacred plants

of *cusa*, *bilva*, the *lotos*, the *sandal*, and other trees, for the service of the temples.

The Brahmins in those ages exclusively professed the medical science; and it was absolutely necessary for those who subsisted on the vegetable productions of the earth to be well informed of the salutary or noxious quality of the roots on which they fed. Their advance in this science, consequently, must have been very gradual: it depended upon long and intense observation of the effect on the human constitution, produced by the different species of herbs and plants cultivated in the garden, or growing wild in the field; and wisdom, in many instances, could only have been obtained by fatal experience. They also sedulously observed the effect of different plants upon animals; and as Melampus, a Greek devoted to the concerns of pastoral life, from observing that goats were purged after eating the bitter root hellebore, administered it afterwards with similar effect to man, and was therefore considered as the inventor of that branch of the science; so, doubtless, the Brahmins, in the boundless forests of India, were guided to the use or rejection in physic of the various vegetables that spring up spontaneously in that more exuberant soil.*

* "The ancients inform us that the vulnerary virtues of dittany were first learned from the stag; Plin. l. xxv. c. 53. Theophrast. l. xi. c. 16.—That the same animal purges

The venomous tribes of reptiles, beautiful but baneful, that lurk amid the luxuriant vegetation

itself by means of seseli; Aelian, l. xiii. c. 50.—That men learned that the ligneous part of cassia was laxative from the ape; Fallop. Purg. Simplic. 35.—That the mungouse, a species of ferret, eats a certain root, after which he attacks the serpent with impunity; Kæmpfer. Exot Fasc. iii. c. 10. Auct. Herb. Amb. c. 37, 53. G. ab Orta, l. i. c. 44. et Loch in Diss. On which account it is used in malignant diseases.—That the deer wounds its eyes when they are inflamed with the point of a rush, and the goat with the bramble; Geppon. l. xviii. c. 18. Plin. l. viii. c. 50. Aelian. l. vii. c. 14.—That the tortoise defends itself against the bite of a serpent by origanum; Aelian. Anim. l vi. c. 11.—That the bear, by means of the arum, opens its intestines, almost collapsed during winter; idem, l. vi. c. 3.—That the same animal licks up ants as an antidote, when poisoned by eating the mandrake; Plin. l. viii. c. 27.—That jays, partridges, and blackbirds, purge themselves with the leaves of laurel during their moulting; idem.—That pigeons, cocks, and doves, use pellitory, and ducks and geese stone-crop, for the same purpose; idem.—That hawks cure their eyes by the juice of the hawk-weed: Aelian, Anim. l. ii. c. 43.—That the serpent casts the skin off its eyes by the application of fennel; idem, l. ix. c. 16.—That partridges, storks, and wood-pigeons heal their wounds by origanum.; idem, l. v. c. 46.—That, from dogs eating certain herbs, in order to purge themselves, the Egyptians learned the art of purging; idem.—That from dogs, also, the virtue of pellitory in dissolving calculi was discovered; Boccone.—That Melampus discovered the purgative quality of hellebore, by observing its effects upon goats.—That deer, when injured by a species of venomous spider, eat crabs to obviate its effects; Plin. l. viii. c. 10. Aelian. Var. Lect. l. xiii. c. 50. Confer. Haller. Biblioth. l. i. p. 3."—— *Lettsom's History of the Origin of Medicine*, p. 88.

of India, by their attacks upon man, added a stimulus to their researches in this walk of science. The bite of some of the Indian serpents is so immediately destructive, that if the herb, benevolently ordained by an all-wise Providence to be its antidote, be not instantly applied, inevitable death is the result. In consequence vigilance was redoubled and experiments multiplied; the plants, injurious or sanative, were classed in a kind of rude order; medical receipts were treasured up in families *memoriter*, and handed traditionally down with scrupulous fidelity from father to son through successive generations.

It is presumed, that the books of medicine at this day in use among the Indians, contain numerous collections of similar recipes; the greater part of which consist of antidotes against poison, in the deadly qualities of which the old Indians are recorded to have been deeply versed, and to have often administered it, though at the same time they well knew how to repel the violence of the most fatal of that class of drugs. The feigned tale of the propensity of the Hindoo women to get rid of their husbands by this infamous method, and consequently of their being compelled from that cause to burn themselves on the same funeral pile that consumed *their* remains, was probably founded on the general persuasion of the ancients in this respect.

The conceptions of the ancients, however, in

regard to the cause of this singular ceremony, were undoubtedly ill-founded; for, women devote themselves, in India, to the consuming flame in consequence of the sublime promises holden out to them for this fidelity, even in death, to their husbands, in the sacred Vedas.* The real origin of the Hindoo law, that permitted the living to burn themselves, and enjoined the burning of the deceased, seems to have been derived, the former from mythology, on the supposition that the transmigrating soul was purified in its passage through the elemental flame; the latter, that it prevented the air from becoming, as might be conjectured, tainted in that burning clime by putrefaction. The Indians had sufficient store of common as well as fragrant woods to perform this ceremony. The Egyptians, on the contrary, whose country afforded but slender supplies of wo d, endeavoured, by embalming the dead, to avoid that dreaded evil. This want of timber for building elegant and airy structures was also probably the occasion of giving to their architecture, and, among other buildings, to their sepulchres, that massy and indestructible form, which for so many centuries has resisted, and for as many more perhaps may resist, the united violence of the sun and weather.

* Halhed's Gentoo Code, preface, p. 4.

As the nation at large was deeply interested in this kind of medicinal research, after the invention of alphabetical writing, it became equally the law of Hindostan as of Greece, that remarkable disorders, and their mode of treatment and cure, should be recorded on tablets conspicuously suspended on the pillars of the temple; which, in consequence, every body was able to consult, and regulate by the rules there laid down, the treatment of the malady with which either himself or his family were inflicted. The catalogue, increasing with every age, soon became enormously great. The books which the Hindoos at this day, and the Egyptians anciently, pretended to have in medical science, were probably nothing more than observations and recipes of this kind carefully collected and zealously preserved.

In all operations where incision was absolutely unavoidable, the ancient Indians, doubtless, used for a time, like other nations, instruments made of siliceous substances, to which the ancients had found out a method of giving an edge as sharp as the keenest steel; for, both Herodotus and Diodorus inform us, that it was with an Ethiopic stone the Egpytian physicians opened the dead bodies, and cut out the entrails of those that were to be embalmed; and with

sharpened flints, also, they performed the ceremony of circumcision.*

A considerable portion of the precepts in the code of Indian laws has either an immediate or remote allusion to the health of the four great tribes. Hence their innumerable ablutions, their temperate diet, their various fasts, so proper in a country where perspiration is abundant, where an ardent sun urges and inflames the juices of the blood, and an universal disposition to libidinous pleasure prevails. The priests of Egypt, induced by similar motives, equally forbade indulgence in animal food and wine; the frequently prescribed use of cassia, senna, and other luxative drugs, which are indigenous in that country, checked at once the spreading of the elephantiasis and the fervour of passion exalted by the beams of a tropical sun. Thus the flames that formerly ascended in the Egyptian temples at once purified the air and soothed the deity adored. From the vast lakes and other stagnant waters of the Delta ascended noxious vapours, which the sacred grass, called κυφος, by Plutarch, profusely burnt three times, was intended to disperse. The grass κυφος, of the Egyptians, was possibly the CUSA of the Indians, which was ever of the first

* Herodotus, lib. ii.—Diod. Sic. lib. i. p. 101.

note in their herbal sacrifices. Herodotus, who is very ample on this subject, informs us, that the Egyptians purged themselves every month, three days successively, by vomits and clysters, to preserve uninterrupted health.* Their aversion to the rich and rancid flesh of swine, a species of food also strictly prohibited by the Levitical law, and inviolably avoided both by ancient and modern Jews, as well as the entire abstinence of the sacerdotal order from fish, and animals accustomed to feed on fish, is doubtless to be imputed to the same judicious precaution.

I have frequently observed that milk, GHEE, or clarified butter, and rice, dressed and rendered palatable, a variety of ways, by the rich spiceries of the country, formed the principal food of the Brahmins and indeed of the Hindoo tribes in general. No banquet is esteemed more costly and luxuriant by those priests than a full bowl of fresh cream, whose richness they moderate with the diluting juice of the cooling and high flavoured fruits of that garden of Asia. Hence the veneration of the Indians for the bovine species, which seems to have originated as well from their gratitude to that useful animal for the nutriment it produced them, as from the anxious wish of their great legislator

* Herodotus, lib. ii. p. 82.

to preserve a race so absolutely necessary to the concerns of agriculture, which was to be the constant employ of the fourth part of the nation; and here we discover at least *one* probable source of the prevailing doctrine of the Metempsychosis. This rooted veneration both of the Indians and Egyptians for the same deified animal was the occasion of the former giving to the rock, through which the Ganges rushes into Hindostan, the imagined form of a cow, whence its geographical name of GANGOTRI, *the Cow's Mouth;* and caused the spot where the Nile separates, at the point of the Delta, to be denomited BATN-EL-BAKARI, *the Cow's Belly*; a very remarkable fact, and scarcely possible to be accounted for on the score of mere accident.

With all this studious care of the legislator to prevent diseases, since they are the lot of suffering humanity, diseases would at times afflict the Hindoos with as much inevitable certainty, though, probably, from their temperate habits, with far less violence, than their Asiatic neighbours.

It cannot be supposed, indeed, that, in a climate where rice and vegetables compose the uniform diet of the people, many acute diseases could have occurred in the practice of the physician; and those that did occur were pro-

bably cured by dietetic medicine, beyond which the knowledge of mankind, in the very early ages to which I allude, cannot be presumed to have greatly advanced. The whole extent of the science, at that time known, seems to have been confined to the use of medicines that were either of an emetic, purgative or diuretic, nature. Thus among those of a purgative sort, are reckoned the *Mirabolans*, which are prescribed very generally and abundantly in cases that require it. As a sovereign stomachic they give the infusion of a reed, on the Malabar coast, called *Cræatt*, a plant resembling the Centaurus Major: it has an extremely bitter taste, and is considered as a great promoter of digestion. In this light they also esteem the nut of the Areca, mixed with chunam, a kind of lime burnt and made of the finest shells, of which they universally take very large quantities. But what shall we think of a race who insist on the cooling virtues of pepper, and give large doses of it in a burning fever? Among provocatives, they have always set a very high value on the invigorating root of ginseng, and others of similar quality, and have been but too happy in finding out a great variety which need not be here enumerated. For fluxes of blood, which are not uncommon in this climate, especially in the autumnal season, the Brahmins have

discovered a very simple, but, as they affirm, a very efficacious, remedy; it consists in a regimen limited to rice alone, stewed dry, to which they ascribe a quality highly absorbent of the acrimony which occasions the disorder: by way of drink, they allow only water, corrected by a very moderate quantity of cinnamon or cassia lignum.

If we may judge from certain customs now prevalent in India, and recorded by modern travellers, *fire* was also not unfrequently applied in cases where the aid of the physician was necessary; for, at this day, in violent sickness, purging, and contortion of the intestines, they apply to the feet plates of burning iron, which are said rarely to fail of the intended effect.

The expressed juice of particular roots and vegetables, known by experience to possess either of the qualities above-mentioned, emetic, purgative, or diuretic, was freely administered to the patient who required it. With respect to *acute* internal diseases, when they did happen, their slender experience in the deeper branches of the healing heart, added to their general, I do not say *total*, ignorance of anatomy, rendering them utterly inadequate to the management of them, they resigned the patients afflicted with them to the care of the

gods, by whose immediate resentment against their crimes, it was firmly believed, they were incurred. In diseases of this desperate class recourse was had to earnest supplication and oblations, often of the most costly kind, in hopes, by them, to appease the wrath of the offended deity. The Brahmins, who, on these occasions, found it necessary to substitute juggling for science, resorted to the most powerful charms to evoke the evil dæmon, and incantations the most awful were the immediate prelude either to a speedy recovery or a rapid exit. In considering this early stage of the science, it should not be forgotten that odours, strongly aromatic or offensively fetid, had their share in the practice of the Hindoo physician; and certain precious stones, of the more costly kind, worn as amulets, were not supposed to be without a sovereign virtue in the cure of diseases.

War, to which the Rajah or military tribe had a natural and authorised propensity, and regulations for the conduct of which, in all the numerous branches of that science, which consequently prove their early acquaintance with it, engage a large part of the Hindoo code, could not have been carried on, especially with such instruments as the battle-axe, and others then made use of, without dreadful laceration of the human frame; and it would be too cruel

a reflection on any race of men, however abhorrent at the sight of blood, to suppose the unhappy victims would be left to perish without an effort to staunch the streaming wound whence life was issuing. In these cases the application of bandages, with the addition of certain leaves or roots bruised or steeped in balsamic oils, or unguents formed of the vulnerary herbs, were all that could be employed by a race of men, who, from superstitious principles, are said in general to have avoided, as much as possible, the use of the lancet, and even to this day to continue entirely ignorant of *anatomical dissections.*

However inferior the knowledge of the Hindoos in the practice of the more intricate branches of medicine, their early respect for the profession is evident, by their making a physician, by name Danwantara, one of the fourteen *retnas,* or precious things recovered from the ocean after the deluge; and from their most ancient medical book, entitled Chereca, being believed by them to be the work of SEEVA. That deficiency of knowledge, however, is by no means an ascertained fact, but rather the contrary; for Sir William Jones declares that he had himself seen Indian prescriptions taken from their ancient medical treatises, one consisting of *fifty-four,* and another of *sixty-six,*

ingredients; but such compositions, he adds, are always to be suspected, since the effect of one ingredient may destroy that of another; and it were better to find a certain account of a single leaf or berry, than to be acquainted with the most elaborate compounds, unless they too have been proved by a multitude of successful experiments. "The noble deobstruent oil extracted from the Eranda-nut, the whole family of balsams, the incomparable stomachic root from Columbo, the fine astringent ridiculously called Japan earth, but in truth produced by the decoction of an Indian plant, have long been used in Asia; and who can foretel what glorious discoveries of other oils, roots, and salutary juices, may yet be made?"*

In another place he acquaints us that infinite advantage may be derived by Europeans from the various medical books in Sanscreet, which contain the names and descriptions of Indian plants and minerals, with their uses, discovered by experience, in curing disorders; and there is a vast collection of them from the Cheraca, above-mentioned as the work of SEEVA, down to the Roganirupana and the Nidana, which are comparatively modern. Of medicine, however, systematically formed into a science, he forbids us, after all, to expect

* Asiatic Researches, vol. i. p. 409, London, quarto edit.

finding any ancient treatise whatever, perhaps, in all the Oriental world; what in time may be discovered will be a mere empirical history of diseases and remedies as now practised in India and the greatest part of Asia, by Brahmins and Mahomedans.*

In many of the medical pursuits of the Indians, a certain degree of chemical knowledge was essentially necessary; and the same scientific skill by which they were enabled to extract the colour from indigo, sandal, and other vegetable productions, to give the vivid dyes to their manufactured cottons, would doubtless direct their efforts in extracting the virtues of those rich botanical and mineral treasures which their country in such abundance produced for the more important purposes of health. Their chemistry, however, opens an immense field for discussion; and, on that account, I forbear going at any length into the subject, till it comes regularly before us in this review of Indian literature. What I shall have to observe upon it will merely concern the science under consideration, and as it is connected with a subject extremely interesting, but very much misconceived; I mean, whether in reality *anatomical dissections* have always been looked upon with

* Asiatic Researches, vol. iv. p. 350.

that horror with which they are now regarded in India.

I shall commence the concise strictures, which I have at present to offer on the subject, with observing, that, though from the general slow advance of mankind in intellectual improvement, we ought to be extremely cautious of conceding too much even to Indian ingenuity; yet it cannot be denied, that the mine of knowledge once sprung, that curious and docile race ardently and vigorously pursued their investigations, and penetrated that mine to the profoundest depth their limited means of research would allow of. Hence, probably, a very few ages elapsed before the combination of a thousand incidental circumstances led them to become gradually acquainted with the two grand pillars of all genuine medicine,—anatomy and chemistry. The offering up of human victims to Cali, the sable goddess of India, and their blood in consequence profusely shed by the ancient Indians in the Naramedha sacrifice, a practice forbidden the modern Brahmins, though sometimes practised, even at the present day, by the military tribes, more familiar to sanguinary institutions; that dreadful rite, I say, could not fail of making them speedily acquainted with the anatomy of the human body. Their having been anciently accustomed to

these oblations, from their present horror of human and bestial slaughter, which commenced with the avatar of Buddha, who forbade them under the severest penalties, was once strenuously denied; but more familiar acquaintance with the Sanscreet language, and their original institutions, obtained at Benares itself by learned Orientalists of our own nation, have placed the matter beyond all doubt; and the subject has been already amply canvassed in preceding volumes. It was on this account that I hesitated in speaking decisively when discoursing concerning their advance in anatómical science. But, if doubt should still remain, let him that hesitates attend to the RUDHIRADHYAYA, or *sanguinary chapter*, in the fifth volume of Asiatic Researches, translated *verbatim* by Mr. Blaquiere from the Calica Purana, and he will not fail of being convinced of the addiction to this nefarious crime of the ancient, whatever may be the placid character of the modern, Indian. No precepts can be conceived more express, nor indeed more horrible, than those which the text of this tremendous chapter enjoins.

"By a human sacrifice, attended with the forms here laid down, DEVI, the goddess Cali, is pleased one thousand years, and, by a sacrifice of three men, one hundred thousand years.

By human flesh, Camachya, Chandica, and Bhairava, who assume my shape, are pleased one thousand years. An oblation of blood, which has been rendered pure by holy texts, is equal to ambrosia; the head and flesh also afford much delight to the goddess Chandica. Let therefore, the learned, when paying adoration to the goddess, offer blood and the head; and, when performing the sacrifice to fire, make oblations of flesh.

"Let the performer of the sacrifice be cautious never to offer bad flesh, as the head and blood are looked upon by themselves equal to ambrosia.

"The performance of the sacrifice with a Chandrahasa, or Catri, (two weapons of the axe-kind,) is reckoned the best mode; and with a hatchet, or knife, or saw, or a sangcul, the second best; and the beheading with a hoe, or Bhallac, (an instrument of the spade-kind,) the inferior mode.

"Let not the learned use the axe before they have invoked it by holy texts, which have been mentioned heretofore, and framed by the learned.

"Let the sacrificer say, Hrang Hring, Cali, Cali, O horrid-toothed goddess! eat, cut, destroy all the malignant, cut with this axe;

bind, bind; seize, seize; drink blood; spheng, spheng; secure, secure. Salutations to Cali

"Let the face of the victim be turned towards the north, or else let the sacrificer turn his own face to the north, and the victim's to the east. Having immolated the victim, let him without fail mix salt, &c. as beforementioned, with the blood.

"The vessel in which the blood is to be presented is to be, according to the circumstances of the offerer, of gold, silver, copper, brass, or leaves sewed together, or of earth, or of *tutenague*, or of any of the species of wood used in sacrifices. Human blood must always be presented in a metallic or earthen vessel; and never, on any account, in a vessel made of leaves or similar substance."

Again, it is said, "Let a human victim be sacrificed at a place of holy worship, or at a cemetery where dead bodies are buried. Let the oblation be performed in the part of the cemetery called Heruca, which has been already described, or at a temple of Camachya, or on a mountain. Now attend to the mode.

"The cemetery represents me, and is called Bhairava; it has also a part called Tantranga: the cemetery must be divided into these two divisions, and a third called Heruca.

"The human victim is to be immolated in the east division, which is sacred to Bhairava; the head is to be presented in the south division, which is looked upon as the place of sculls sacred to Bhairavi; and the blood is to be presented in the west division, which is denominated Heruca.

"Having immolated a human victim, with all the requisite ceremonies at a cemetery or holy place, let the sacrificer be cautious not to cast eyes upon the victim.

"On other occasions, also, let not the sacrificer cast eyes upon the victim immolated, but present the head with eyes averted.

"The victim must be a person of good appearance, and be prepared by ablutions and requisite ceremonies, such as eating consecrated food the day before, and by abstinence from flesh and venery, and must be adorned with chaplets of flowers, and besmeared with sandal-wood."*

The early addiction of the Indians to these sanguinary rites, these minute injunctions as to the mode of sacrificing the human victims, and the auguries deduced from them, being thus fully demonstrated to have taken place from the Puranas, the books holden most sacred among them next to the Vedas,—to say no-

* Asiatic Researches, vol. v. p. 378.

thing of what they must infallibly have learned from the same conduct in regard to bestial sacrifices; for the regulation of which, very minute and circumstantial precepts are given in the same chapter;—after these authentic statements, I say, it is impossible to give credit to those who affirm that their ancestors were totally ignorant of the internal structure of the human body, and that a race, so curious in their researches into natural history, were unacquainted with those anatomical dissections which are so indispensably necessary in the judicious administration of internal medicine. The flint-stones, before-mentioned, with their extremely keen edges, might, in the infancy of anatomical science, be sufficient for every purpose of this kind; but under the next head it will be shewn that metallurgic operations, also, were in such early periods practised among them, that there was no necessity for their continuing to make use of those rude instruments in surgery beyond the first or second century after the deluge. In the preceding quotation, sacrificing-instruments of the *axe*-kind, the *hatchet*, the *saw*, and the *spade*, are repeatedly mentioned. These could not have been fabricated without the exertion of chemical science by the process of fire, and hence it is at least demonstrated that they must have

been accustomed, at the early period when the Puranas were composed, to the method of fluxing *metallic*, as well as of compounding *herbaceous*, substances.

To place the subject in debate beyond the possibility of future dispute, I shall select a passage from the Essay on the Philosophy of the Indians, the last publicly delivered by the only person who has ever read, in the original, the sublime Vedas of India, the distant date of whose promulgation has already been ascertained. "In the Veda itself," says Sir William Jones, "I found, *with astonishment*, an entire *Upanishad* on the internal parts of the human body; with an enumeration of nerves, veins, and arteries; a description of the heart, spleen, and liver; and various disquisitions on the formation and growth of the fœtus.* This must be considered as absolutely decisive of the question; and all that is left us is extreme astonishment, with the President, at the great and total change that has taken place in the manners and sentiments of a race, which, in all other respects, are as immutable as the laws of the Persians, their ancestors.

But though from the early use, among the Indians, of weapons fabricated of *brass* and *iron*, as recorded both by sacred and profane writers

* Asiatic Researches, vol. iv. p. 167.

and from the equally undoubted use of metallic instruments in surgery, it is indubitable, that, in the most ancient periods, that branch of chemical science was known to them which has relation to the fusion and compounding of metals I think it scarcely credible that, in the early times to which I allude, they had advanced so far in that science, as to apply preparations of the various metals to medicinal purposes. No proofs, at least, of any such fact, have as yet been exhibited, and the question, therefore, with respect to India at least, must remain undecided till the Brahmin books on the subject have been more deeply investigated. On the other hand, we are unable to reconcile to reason or tradition the judgment pronounced by Le Clerc, and the authorities cited by that learned historian of this science, that nothing of this kind was known till so late a period as the age of Paracelsus. The contrary is evident from an infinite variety of passages scattered up and down in the medical works of the ancient Greek writers, which the learned Mr. Dutens has collected together under the head of Medical Chemistry, and to which I beg to refer the inquisitive reader.*

There remained enough, otherwise, to be done by the Oriental student; for nature, as before

* Inquiry into the Learning of the Ancients, p. 243.

observed, has stored India and its neighbouring territory with an infinite variety of the noblest natural productions that enrich the Materia Medica; and for the discovery and trial of their virtues, as well as the extraction of their balsamic oils and essences, we are primarily indebted to the laborious investigation and patient toil of the ancient Brahmins. A summary view of a *portion* only of her treasures of this kind will convince the reader of the truth of this remark. Her forests and gardens produce us, in high perfection, cassia, aloes, opium, rhubarb, the white and red saunders, saffron, turmeric, anacardium, the amomum, sesamum, assafœtida, benzoin, and camphor. The gums lac, benjamin, gamboge, myrrh, olibanum, sanguis draconis, bdellium, storax, and innumerable other resins, are also her tribute to the western world. Her mineral beds are fraught with the most precious ores and gems; her extensive shores abound with the richest pearls, and are covered with the finest ambergris; her very animals yield us musk, civet, and the bezoars; her aromas and spices of every kind surpass enumeration; the pepper, the ginger, the nutmegs, the cloves, the cardamoms, the cinnamon, the nardus Indicus, and other fragrant nards, which she matures in her bosom, and sends annually to Europe, to conquer, by effeminacy and luxury,

the nations who have subdued her ingenious progeny by ruder weapons.

In what manner and to what particular cases the old Indian physicians applied all this immense treasure of medicinal roots and drugs we shall never fully know, till their ancient treatises on the subject shall have been effectually explored. But, as it is necessary to bring this prolonged discourse on medicine to an end, we shall conclude with taking a summary view from authentic sources of information, of the principal diseases with which the Indians are afflicted, and their usual methods of cure as in practice at the present day, but most probably derived from very ancient sources of instruction.

On this subject it must be confessed, that, however exalted might have been the knowledge of the ancient Indians, they have bequeathed a very slender portion of it to their descendants, who seem to practise physic, as they do astronomy, by a routine of which they do not understand the principles. It is this ignorance as to the theory, and gross absurdity as to the practice, of medicine, in the present race of Brahmins, indeed of all the Oriental nations, that has rendered European physicians so much in request at the court of the Indian and Mahomedan princes; that detained Gemelli so

long at the court of Jehan Ghir; and gave an opportunity to Bernier to write his interesting account of the life and actions of Aurungzeb, and the voluptuous retreat of the Indian emperors at Cashmere. This latter traveller, with Thevenot, Fryer, and Sonnerat, two of them physicians, and consequently able judges of the subject, will be my faithful guides in the course of that survey.

The account of Bernier, however, though a physician, is, I am sorry to add, very superficial and unsatisfactory; it consists in the enumeration of a few short aphorisms, simple indeed, and rational enough, but certainly, not very profound or scientific. Thus, in a general way, he acquaints us, their books inculcate, "that one who is sick of a fever stands in no great need of nourishment; and that the main remedy of all sickness is abstinence; that nothing is worse for a diseased person than flesh broths, nor does any thing corrupt sooner in the stomach of a feverish patient; and that no blood is to be taken away" (which flatly contradicts the assertion of their *never* using phlebotomy) "but in cases of great and urgent necessity, as in phrenitis, or inflammation of the chest, liver, and kidney."*

* Bernier's Voyages to India, vol. iii. p. 165, London edition, 1672.

Thevenot mentions two methods in general use among the Indians of curing the bite of venomous reptiles, of a very extraordinary nature; the first is, holding a burning coal, as long and as close as possible, to the wound, which draws out the venom by degrees, and, what is very singular, the patient does not feel any great inconvenience from the heat during the time of the operation. The other remedy consists in the application of the *Cobra*, or snake, stone. Of this celebrated specific, the best are made in the city of Diu, and are composed of the roots of certain plants burnt to ashes, which ashes are mixed with a particular kind of earth, and then burnt a second time. Of this composition, reduced into a paste, they form the Cobra-stone of the size of a pigeon's egg. It is applied, in case a person be bit by any kind of serpent or viper, or wounded by a poisoned arrow, in the following manner:— they first prick the wound with a needle till the blood flows, and then fix the stone to it, which sticks fast, and remains there till it falls off of itself. It is afterwards put into woman's, or if that cannot be had, into cow's, milk, where it purges itself of the poison; and if this be not done immediately, the stone bursts.*

* Voyage aux Indes Orient, vol. v. p. 318.

Dr. Fryer, who was ten years in India, and who, as a physician, was certainly a proper judge of such matters, speaks also of these snake-stones. He says, they are made by the Brahmins, and that they are a sure counter-poison to all deadly bites. If the stone adheres, it attracts the poison, and, put into milk, it recovers itself, leaving its virulency therein, which is discovered by its greenness.*

This author imputes to the vicissitudes of the climate all the variety of diseases suffered by the Indians. During the steady northern monsoon, their fibres are hardened against the usual diseases of the country. In the variable months, catarrh, glandular swellings of the throat, rheumatisms, and intermitting fevers, are common among them. In the extreme heats they are afflicted with cholera morbus and violent inflammations of the eyes. In the rains, with dreadful fluxes, and disorders of the brain and the stomach: for the latter they eat HING, a sort of liquid assafætida, which occasions them to emit a disgusting odour,

In agues, he says, they use a powder composed of a preparation of native cinnabar, which is reckoned as infallible as the Peruvian bark among us.†

In lethargies they administer garlic and

* Fryer's Travels, p. 33. † Ibid. p. 115.

ginger in a menstruum of oil or butter. At present they use not the knife in scarification, but the rind of a certain caustic nut that burns the skin. The actual cautery is applied in vomiting, with looseness, and also in calentures. They abhor phlebotomy; but, when absolutely necessary, they make use of leeches, using them immoderately, and often putting on a hundred at once, which they have not skill to remove, and they adhere therefore till they are satiated, and then fall off of themselves, by which means the life of the exhausted patient is often exposed to the most imminent danger.* Their practice in fevers is not less pernicious; for, according to Dr. Fryer, they administer coolers till, with the flame of the disease, the vital heat is also nearly extinguished; obstinate chronical diseases are the fatal consequence. Dropsy, jaundice, and cachexies of every description, attack the patient and make the remainder of his life miserable. In fevers less violent they content themselves with administering, in abundance, the cooling fruits of the country. Thus the fruit of the Anana, or Indian pine-apple, on account of its peculiar yet pleasing acidity, mingled with a delicious flavour, is valued as a noble febrifuge. The refrigerating juice of the water-melon, the

* Fryer's Travels, p. 115.

delicious mango, and the fruit of the stately tamarind-tree, are all highly esteemed for the same excellent quality.*

For that most dreadful of diseases, but so common in Eastern countries, the elephantiasis, the ancient Indians found out a sovereign cure in administering arsenic in considerable quantities. The genuine prescription is, happily for the curiosity of posterity, preserved in the Asiatic Researches, and is said to have been an old secret of the Hindoo physicians, who applied it also to the cure of cold and moist distempers, as the palsy, distortions of the face, relaxation of the nerves, and similar diseases: its efficacy too has been proved by long experience; and this is the method of preparing it:

" Take of white arsenic, fine and fresh, one tola; of picked black pepper six times as much; let both be well beaten at intervals, for four days successively, in an iron mortar, and then reduced to an impalpable powder in one of stone, with a stone pestle, and, thus completely levigated, a little water being mixed with them, make pills of them as large as tares or small pulse, and keep them dry in a shady place.

" One of those pills must be swallowed morning and evening with some betel-leaf, or, in countries were betel is not at hand, with

* Fryer's Travels, p. 118.

cold water. If the body be cleansed from foulness and obstructions by gentle cathartics and *bleeding* before the medicine is administered, the remedy will be the speedier."*

The next article in the same volume ought not to be omitted in this account of Indian medicine; it has relation to the bite of serpents, particularly that most fatal one of the *Cobra de Capello*, and the cure is effected by from forty to sixty drops of *volatile caustic alkali spirit* diluted with water, or, if that be not at hand, a rather larger portion of eau de luce, which is to be had every where. The inventor of this valuable medicine is Mr. Williams, a Bengal practitioner. The cases fell under his personal observation; and, for his public communication of it, that gentleman deserves the thanks of every person, native and foreign, in the whole extent of India.

The arsenic pills above-mentioned are also said, I presume from the proximity of that mineral to mercury, to be a sovereign cure for the *Persian fire*, as they there call the *lues venerea*: and here I find it necessary to remark, that, upon whatever treatise, concerning the diseases of India, we cast our eyes, we are certain to read of the ravages of this fatal disor-

Asiatic Researches, vol. ii. p. 149.

der, which seems to have reigned for *immemorial ages* in that country; and, owing to the unhappy rejection of European aid by the inhabitants, from superstitious motives, and a rooted prejudice in favour of their own absurd method of treatment, to have taken wide and deep root in it, and to have cut them off annually by thousands.

In proof of these rooted superstitions and obstinate prejudices of the Hindoos, just mentioned as the indubitable cause of such dreadful calamities to them, may be adduced the following instance inserted in the Sketches of Mr. Crauford, who writes from personal knowledge.

"One of the natives, who was employed in an eminent post at an English settlement, being prevailed on in a dangerous illness to receive a visit from an European doctor, it was found that, by long abstinence, which in sickness the Hindoos often carry to excess, the stomach would no longer retain any thing. The disorder being of a putrid kind, the doctor wished to give the bark in strong wine; but the Hindoo positively refused to take it, notwithstanding many arguments that were used both by the doctor and the governor who accompanied him; and who had a considerable degree of influence over the Hindoo. They promised that it should remain an inviolable secret; but he replied with

great calmness, that he could not conceal it from himself; and a few days afterwards fell a victim to his perseverance."*

Most of the children of the inferior casts are said to come into the world with the virus of this dreadful malady latent in their blood, and the most terrible evils result from it in future life. Medicines that can only palliate the symptoms, but have not efficacy to exterminate the seeds of it, are made use of, and the tortured patient lingers through a miserable life, and dies at last of the elephantiasis.† The public institution of Dancing Girls, an authorized system of prostitution that reflects eternal dishonour on the policy of the country, has probably been the baneful source of this national calamity.

From the same fatal causes, ignorance and superstition, added to a burning climate, the small-pox, when it appears, is said to spread terrible devastation through their great towns and villages. The principles of their religion forbid the use of inoculation; they make no distinction in their treatment between the confluent and the refluent kind. Every thing is left to diet-drinks and superstitious antidotes; the patient is sprinkled with the ashes of cow-

* Sketches of the Hindoos, p. 306.

† Sonnerat, vol. ii. p. 146.

ding; anointed with cocoa-nut oil; and finally bathed in cold water, which generally terminates his existence.*

Sonnerat records a singular cure among them for the epilepsy, which is eating of rooks. In cutaneous disorders, which are supposed to proceed from worms, unguents and cataplasms are seldom applied, the omnipotent caustic removes at once the skin and the worm that corrodes it. For disorders produced by cold, the hottest internal medicines are used; inflammation, convulsions, and death, ensue; and the evil dæmon is execrated for the sins of the unskilful physician. The poverty of their diet, especially of the inferior classes, while it preserves them from inflammatory diseases, induces those of a very different kind. The violent purgatives to which they constantly resort in all illness, from supposed obstructions, increase the malady, and the carcase of the putrid patient ejects worms upwards and downwards; his skin burns; his eyes are sparkling and humid; his tongue is torrid, and often split; he grows delirious, and dies.

All the species of fluxes before described, with their concomitant symptoms, are enumerated by this author, with the addition of one of a sort more than usually fatal, which

* Sonnerat, vol. ii. p. 146.

happened while he was in India, and carried off above sixty thousand people in Pondicherry and its neighbourhood.* He imputes it to perspiration suddenly obstructed by one or other of the thousand causes that so frequently produce it in India, by habits of religion, sleeping in the open air, meagre nutriment, ablution in cold water after eating or exercise, &c. &c.

The quantity of butter eaten with his rice, by the abstemious Brahmin, not unfrequently brings on indigestions which terminate in sudden death; on the other hand, those casts which regale on meat, a nourishment too heavy for so hot a climate, are often the victims of indigestion, called in India *mort de chien*.

Some inflammatory fevers they have which are cured by diet-drinks made of the pounded root of the margosier, something similar to our bark, and preferred by them to that imported by us. The gout cannot be supposed common among them; but, when it attacks them, it is cured by the use of a powder in which brimstone is the principal ingredient. In the part of India, where our author resided, they cure the bite of the Cobra by an application known to Europeans by the name of Ointment of Madura, and likely enough to have been one of their oldest specifics against its poison. It is a mix-

* Sonnerat, vol. ii. p. 142.

ture of different herbs and roots containing a great quantity of volatile alkali; and the principal ingredient in it is the kernel of the pine-apple tree. It is a violent purgative, and emits a fætid odour like human excrement. They rub a portion into the wound, and make the patient swallow another portion. If early applied, it generally proves efficacious.*

Such is the extraordinary, but authentic, portrait of the medical practice of the Brahmins. I have entered as extensively into the subject as possible, because it is a very interesting one to European practitioners. We shall now attend to their CHEMISTRY, which will lead us a few steps farther in the inquiry; though to what extent they applied the preparations of the several metals to medicinal purposes can never be known, till their oldest Sanscreet treatises shall have been translated.

CHEMISTRY.

Those who, from the earliest periods, have been devoted to a superstitious veneration of the element of FIRE, those who gave to their pagodas the form of pyramids and cones, to imitate the solar beam, and on whose altars a sacred flame for ever blazed, could scarcely fail of being

* Sonnerat, vol. ii. p. 153.

intimately acquainted with its wonderful properties, which in fact were the source of that admiration and reverence. It was their acquaintance with its active pervading principle and energy which induced them to idolize FIRE as the soul of the material world; its hallowed beam, their physical theology taught them, emaning from the solar orb, first gave animation and motion to universal nature; and, from some mutilated tradition of a better theology, they regarded fire as the great CHEMIST that was finally to dissolve the universe and reduce it to ashes. In fact, they conceived the orbs of heaven to be formed of a kind of ætherial fire, and that they floated in a circumambient luminous fluid, which they considered as a fifth element, and denominated the AKASS. I have had frequent occasion to observe that their superstitious veneration for this element probably commenced, during their residence in Chaldæa, with the first corruption of the pure patriarchal theology; and, according to the Indian history,* devout pilgrims, as well as in memorial of their origin as of this their primæval devotion, still resort to Hierapolis in Syria, and pay their devotions at the two JWALA-MUCHIS, or *springs of Naptha*, the one not far from the banks of

* Mr. Wilford on Egypt and the Nile, in Asiatic Researches, vol. iii. p. 297.

the Tigris, the other on the flaming plain of Baku, on the borders of the distant Caspian Sea, where the priests of the sun watched night and day the never-dying flame, supposed to have been kindled by his own ray.

Of the powerful agency of FIRE, the Asiatics could scarcely avoid entertaining the most awful conceptions, since its tremendous effects were often too distinctly visible in that torrid climate, where the broad flashes of the tropical lightning fired their loftiest forests, and the globe of electric flame levelled their proudest temples with the dust. They also saw it in the bursting volcano that shook to the centre their mountains of broadest base, and filled whole provinces with desolation and dismay.

Observing with anxious and fearful attention the wonderful operations of nature by the process of fire, in the melted minerals that rolled in torrents down the sides of the flaming mountain, in their resistless course sweeping away every intervening object, or assimilating it with its own substance, the ancient inhabitants of Asia endeavoured to imitate her supreme analyzing power, and very early commenced the practice of chemistry. To what extent, indeed, that primitive race knew the art of decompounding and combining bodies by means of fire, it is impossible to ascertain; but, without

being considerable adepts in this science, neither could Tubal Cain, — that Tubal Cain, whose high antiquity and whose resembling name plainly mark him for the Vulcan of Pagan mythology; for, they thought, and one might almost think with them, that the inventor of the science of chemistry could scarcely be less than a god, — have been the instructor of every artificer in brass or iron; nor the Indian Visvacarma, the active substitute of Agni, the Hindoo god of fire, have forged the arms of the Devatas, those missile weapons of fire in the Puranas denominated AGNEE-ASTRA, and made use of in the Satya, or first age of the world. The use of fire-arms, in the earliest periods, opens a wide field for reflection, in many respects, since it proves that the Indians knew how to apply the salt-petre and sulphur vivum, with which their plains abound, to the purposes of war, and formed out of them a composition which if not actual gunpowder, was of such a nature as gave to bodies a projectile motion. Mr. Halhed expressly denominates it *gunpowder*, and gives the following account of the invention in his preface to the Gentoo Code.

"It will, no doubt, strike the reader with wonder, to find a prohibition of fire-arms in records of such unfathomable antiquity; and he will probably hence renew the suspicion which

has long been deemed absurd, that Alexander the Great did absolutely meet with some weapons of that kind in India, as a passage in Quintus Curtius seems to ascertain. Gunpowder has been known in China, as well as in Hindostan, far beyond all periods of investigation. The word fire-arms is literally, in Sanscreet, Agnee-aster, *a weapon of fire.* They describe the first species of it to have been a kind of dart or arrow tipped with fire, and discharged upon the enemy from a bamboo. Among several extraordinary properties of this weapon, one was, that, after it had taken its flight, it divided into several separate darts or streams of flame, each of which took effect, and which, when once kindled could not be extinguished; but this kind of Agnee-aster is now lost. Cannon, in the Sanscreet idiom, is called Shet-Agnee, or *the weapon that kills a hundred men at once;* and the Puranas or histories ascribe the invention of these destructive engines to Visvacarma, their Vulcan, who is related to have forged all the weapons for the war which was maintained in the Satya Yug, between the Devatas and Assoors, (or the good and bad spirits,) for the space of one hundred years."*

This quotation seems to prove that the natives of this country had both actually and immemorially the use of gunpowder, and the metallic

* Halhed's Gentoo Code, preface, p. 52.

instruments of death, brass, perhaps, or copper employed in the offensive use of that destructive article: but, if the Agnee-aster of ancient times bear any resemblance to the *fire-rocket* used in the modern wars of India, it proves that the Indians had, in those early periods, the use of iron also, the extraction and fusion of which ore, and the preparation of it for use, are among the most complex and elaborate operations of chemistry. The *fire-rocket* is described, by a gentleman who personally examined them in India, "to consist of a tube of iron about eight inches long, and an inch and a half in diameter, closed at one end. It is filled in the same manner as an ordinary sky-rocket, and fastened towards the end of a piece of bamboo, scarcely as thick as a walking-cane, and about four feet long, which is pointed with iron; at the opposite end of the tube from the iron point, or that toward the head of the shaft, is the match. The man who uses it points the head of the shaft, that is shod with iron, at the object to which he means to direct it, and, setting fire to the match, it goes off with great velocity. By the irregularity of its motion, it is difficult to be avoided; and sometimes acts with considerable effect, especially among cavalry."*

A modern author of much celebrity has very ingeniously attempted to prove that the

* Sketches of the Hindoos, p. 295.

ancients were actually acquainted, in very early periods, with the chemical process of making *gunpowder*, and instances the invention of Salmoneus, with which he is said to have imitated the thunder and lightning of Jupiter, in proof of his assertion. What is, however, much more to our present purpose, he cites Themistius to prove that the Indian Brahmins encountered one another *with thunder and lightning* launched from an eminence;* and Philostratus in evidence, that, when attacked by their enemies, they did not leave their walls to fight them, but darted upon them missile weapons, in noise and effect resembling πρηστηρας και βροντας,† *lightning and thunder.* By these weapons were evidently meant the fire-shaft, or rocket, described above; and to these we may add the artificial thunder and lightning used in their cavern initiations.

No higher proof in time need, indeed, be adduced of the intimate acquaintance of the Indians with the penetrating and destructive nature of fire than that exhibited in the *chacra*, with which they have armed their god Veeshnu, and with which he destroys the malignant Assoors. It is a circular mass of fire, which, instinct with life, like the thunder-bolt of the

* Themistius, Oratio 27, p. 337.

† Philostrat. Vita Apollonii, lib. ii. cap. 33.

Grecian Jove, when hurled from the hand of that deity, traverses the illimitable void, and exterminates his enemies wheresoever concealed.*

The ancient mysteries generally abounded with allusions to subjects of a physical kind. The operations of nature in her most hidden recesses, particularly in forming ores, and the precious gems that lie hidden in the bosom of the earth, and in the maturing of which they thought the sun had a considerable influence, were among the favourite subjects of their philosophical investigations. The Persians, in particular, who were THE ANCESTORS of the Indians, must have been well acquainted with metals; for, it is a circumstance not a little curious, and very much in favour of the hypothesis that assigns to Oriental chemistry a very high antiquity, that those learned Asiatics, in their mysterious rites, allotted to the *seven terrestrial metals* the very same names by which they denominated the *seven planets*, and the same hieroglyphic characters at this day equally distinguish both.

It has been observed in a former volume of this work, that, by the subterraneous *cave of Mithra*, they meant to represent the mundane system; and that, in pursuance of this idea,

* Geeta, p. 150.

they erected in that cave a high ladder, on the ascent of which were seven different gates, according with the number of the planets. The first gate was of *lead*, which was intended to mark the slow motion of the planet SATURN; the second gate was composed of *tin*, by which they shadowed out the brilliancy and softness of VENUS; the third gate was of *brass*, which they imagined a just emblem of the solidity and durability of JUPITER; the fourth gate was of *iron*, by which MERCURY was typified, because he is suited, like iron, to all sorts of labours; the fifth gate consisted of a *mixed mass*, of which the heterogeneous composition, variableness, and irregularity, rendered it the fit emblem of MARS; the sixth gate was of *silver*, exhibiting an apt similitude of the mild radiance of the SILVER EMPRESS OF THE NIGHT; and the seventh was of *gold*, a proper emblem of the SUN, the one being the king of metals, and the other being the sovereign of the sky.* We have also observed, that, on the lofty concave dome of this splendid cave, the zodiacal asterisms were designated; and round their walls many astronomical and geometrical symbols were arranged in the most perfect symmetry, and placed at certain distances, which

* Celsus apud Origen contra Celsum, lib. iv.

shadowed out the *elements* and *climates* of the world.†

The progressive advances of the candidate for initiation through the dreary and winding recesses of this subterraneous temple, *immani magnitudine*, had all a physical reference blended with mystic allusions to that theology, which was almost entirely founded on physics. The whole was a sublime allegory; a spiritual sort of *chemistry*. The passage of the body through the respective mundane elements was only typical of the soul's progress through various stages of purification, as gold is tried in the *furnace* of the *refiner*. The utmost exertion of chemical science, known to them, must have been employed alternately to terrify and transport the bewildered aspirant. For want of better, I adopt the same, words which I used before, when describing these mysteries.

After having proceeded for some time through these gloomy adyta, the ground suddenly began to rock beneath his feet; the whole temple trembled; and strange and dreadful voices were heard through the midnight silence. To these succeeded other louder and more terrific noises resembling *thunder*; while quick and vivid flashes of *lighting* darted through the cavern, displaying to his view many ghastly sights and

* Porphyry de Antro Nympharum, p. 256. edit. 1655.

hideous spectres.* At length, the profounder mysteries commenced; and now, arrived on the verge of *death* and *initiation*, every thing wears a dreadful aspect; it is all horror, trembling, and astonishment. An icy chilliness seizes his limbs; a copious dew, like the damp of real death, bathes his temples; he staggers, and his faculties begin to fail; when the scene is of a sudden changed, and the doors of the interior and splendidly illumined temple are thrown wide open. A miraculous and divine light discloses itself; and shining plains and flowery meadows open on all hands before him. *Accessi confinium mortis*, says Apuleius, *et calcato Proserpinæ limine, per omnia vectus* ELEMENTA *remeavi; nocte medio vidi* SOLEM *candido* CORUSCANTEM *lumine*:—Arrived at the bourn of mortality, after having trod the gloomy threshold of Proserpine, I passed rapidly through all the surrounding elements; and saw the SUN at midnight shining with MERIDIAN SPLENDOR.* These successive thunders and corruscations; this blaze of glory, scarcely tolerable by the

* Hence it would appear, they well knew the doctrine of Newton, that "*sulphureous steams*, abounding in the bowels of the earth, ferment with *minerals*, and sometimes take fire with sudden *corruscation* and dreadful *explosion*."—Newton's Optics.

† Apuleii Metamorphosis, lib. ii. v. 1. p. 273; and Indian Antiquities, vol. ii. p. 326.

visual organ; gay smiling plains, and flowery meadows, arrayed in all the vivid colouring of nature; were the effect of the operations of chemistry in the most refined branches of the science, labouring to impress, with alternate effect, on the mind of the enthusiastic devotee, the gloomy superstitious horrors, and splendid celestial visions, so well calculated to keep alive the ardour of the Sabian devotion.

The reader may possibly object to this statement, that it rather concerns the Persian and Chaldæan system of superstition than the Indian; but, as I have throughout these volumes contended for the identity of the theological and philosophical doctrines of those three ancient nations, and particularly as the recorded descent of the Indians from the old Persians is so well authenticated in the Asiatic Researches, I might on that ground suffer the argument for that identity to rest; but there is a most curious, and, to my purpose, most important, passage in the Life of Apollonius by Philostratus, which will decidedly prove the congenial nature of their ideas on this subject, and I shall insert it without a comment: "*Apollonius cum Jarcha Brachmane secreto philosophatus, muneris loco ab eo tulit annulos septem* TOTIDEM PLANETARUM DICTOS NOMINIBUS, *quos singulos gestaret per subjectos planetis dies; sc. ut annulum* AUREUM

gestaret die solis, ARGENTEUM *die lunæ*, FERREUM *die Martis*, HYDRARGYRINUM *die Mercurii*, *die Jovis* STANNEUM, ÆNEUM *die Veneris*, *et* PLUMBEUM *die Saturni*, *quod singulis planetis singula respondeant* METALLA."

Leaving for the present these more distant speculations, let us attend to the gradual progress in metallurgic science of this fire-adoring nation. Properly to cultivate the earth, and cause it to produce in adequate abundance the various kinds of grain, which formed the temperate banquet of the Indian, more durable and penetrating implements than the first simple ones of wood would soon be found necessary; and, to defend the property which industrious individuals might possess, against the assaults of men less honest and industrious, arms would be wanted. Both agricultural and warlike implements were, probably, during those primitive ages, fabricated of brass or copper. To reap the ripened grain, at least, a sickle of metal was required, and cymbals of *brass* and *brazen* sistra are expressly said, by Lucian, to have been employed in the mysterious rites of the Dea Syria, the prototype of the Ceres of Greece, in allusion to the clashing of the *brazen* implements used in husbandry, before mankind had become acquainted with the more difficult process of forging iron. Indeed brass could

scarcely fail of anciently being in very common use in India, since the *lapis calaminaris*, from the fusion of which with copper that factitious metal is formed, is neither more nor less than the ore of Indian Zinc, of which the beautiful composition, called tutenague, next to silver in strength and beauty, has been immemorially formed into the most elegant vases and other domestic ornaments by the Oriental manufacturer. The heroes of Homer stalk in arms of burnished brass; the shield, the helmet, the cuirass, the greaves, were brass; and Herodotus informs us, that a nation very near to India, if they were not in reality Indians, the Massagetæ, had their axes, hatchets, spears, and even their horse accoutrements, of the same metal.* Brass, too, was principally used in the mechanical operations of the more ancient Indians; and from them, or at least from the East, where mines were first explored and wrought, instruments of this metal were scattered over the western world. They are sometimes, at this day, found amidst the rubbish of old mines; and even those of Cornwall, when first re-opened after a lapse of many ages, exhibited to the astonished explorers the hammers, axes, chissels, and other copper and brass tools of the ancient Phœnician miners. In fact, the superior

* Herodotus, lib. i. p. 215.

ductility and malleability of copper would naturally induce a race, ignorant of the deeper arcana of chemical science, to prefer it, even when iron was at length discovered, to that less yielding metal, the smelting and refining of which was attended with such infinitely greater labour. Modern experiments upon some remnants of antiquity of this kind have demonstrated that they possessed the knowledge of hardening copper, either by mixing alloy with it, or by some other means, so as to give it a firmness and solidity nearly approaching to iron.

In the old Indian sculptures and pictures, the Avatars, Creeshna and Ram, are generally portrayed, in combat with their gigantic enemies armed with the battle-axe, or the bow and arrow; whence it may fairly be concluded that these were the most ancient kinds of armour used in Indian warfare. Carticeya, however, the Indian god of war, and the gigantic Ravan, are in the same pictures represented as bearing in their hundred arms, the expressive emblem of enormous strength, a dreadful display of every species of military weapon of offence, as swords, spears, javelins, &c.* which proves that they also were in very early use among the military tribe, and were probably fabricated of

* See the plate of the sixth Avatar in the Indian History, vol. ii. part 1.

iron; which is repeatedly mentioned as an article of great consumption and traffic in the Institutes of Menu. Without this metal, indeed, and that in its most improved state, when refined to STEEL, many of the Indian artists and manufacturers at that early period, and by that code considered as *already arranged in distinct casts*,—I mean in particular the tribes of goldsmiths, jewellers, and engravers,—could not possibly have carried on their respective occupations, nor have cut in gems and metals those Sanscreet characters, which, engraved on the imperial signets of Asia, we have been informed above, by Mr. Halhed, were so anciently and generally diffused from the Indus to the sea of China. For this, they must have had instruments of the nature of the *drill*, the *graver*, and the *trepan*, which being necessarily formed of the purest and highest tempered steel, implies in the Indians a previous knowledge and practical experience of the most arduous operations of metallurgic science.

In respect to that species of chemistry which has relation to the process of hardening argillaceous and other earths by fire, we cannot doubt but that it was fully known to a race famous in antiquity for the many elegant kinds of pottery and porcelain common among them, both for domestic ornament and use. From

tradition, history, and the commercial annals of mankind, for nearly thirty centuries, we also know that they were able to extract, by infusion and other means, from earths, roots, and minerals, that variety of lovely and brilliant dyes, for which they have been immemorially celebrated; and, by distillation and fermentation, all those rich oils and fragrant balsams which the vegetable kingdom so abundantly produces in that luxurious garden of the greater Asia.

"From the insatiable desire of riches," says an old Sanscreet author, cited in Mr. Halhed's Preface, "I have digged beneath the earth; I have sought *by fire to transmute the metals of the mountains*."*

These are essential branches of chemical science; and, that they actually existed at this early period in Hindostan, every body will be convinced who attentively turns over the pages of Menu's Institutes in the chapters that have reference to their mechanical arts and yet unrivalled manufactures. In those pages we find them, as I have truly stated in my Dissertation on the Commerce of this ancient people,† engraving on the hardest stones, and working in the most difficult metals; giving the most beautiful polish to the diamond, an art supposed not

* Halhed's Gentoo Code, Preface, p. 29.
† Vol. vi. p. 363.

to be known till the 15th century; enchasing in gold, and working in ivory and ebony, with inimitable elegance. In weaving, spinning, and dying; in all the more ingenious devices appertaining to the respective occupations of the joiner, the cutler, the mason, the potter, and the japanner; in executing the most curious cabinet and filligree work in gold; in drawing birds, flowers, and fruits, from the book of nature with exquisite precision: in painting those beautiful chintzes annually brought into Europe, that glow with such a rich variety of colours, as brilliant as they are lasting; in the fabrication of those ornamental vases of agate and chrystal, inlaid with the richest gems, that constitute so large a portion of the splendid merchandize of India with the neighbouring empires of Asia; in short, in whatever requires an ingenious head or a ductile hand, what people on earth, in those remote or in these modern times, has ever vied with the Indians?

The selection of a very few possages from those celebrated Institutes, since the *Vedas* are not yet accessible, will be sufficient to prove the truth of the preceding statement. With respect to their skill in exploring *mines* and fabricating *metals*, in *enchasing* in gold, in working in *ivory*, in *piercing gems*, and in *dying*, we read;

"Day by day must the king, though engaged in forensic business, consider the great object of public measures, and inquire into the state of his carriages, elephants, horses, and cars, his constant revenues and necessary expenses, *his mines of precious metals, or gems*; and his treasury." Institutes, p. 243.

"Of brilliant *metals*, of *gems*, and of every thing made with stone, (as *pots* or *vases*,) the purification ordained by the wise is with ashes water, and earth." P. 137.

"A *golden* vessel, not smeared, is cleansed with water only; and every thing produced in water, as coral-shells or pearls, and every stony substance, and a *silver* vessel, not *enchased*." Ibid.

"Vessels of *copper*, *iron*, *brass*, *pewter*, *tin*, and *lead*, may be fitly cleansed with ashes, with acids, or with water." Ibid.

"Utensils made of *shells* or of *horn*, of *bones* or of *ivory*, must be cleansed by him who knows the law, as mantles of *cshuma* are purified." Ibid.

In page 261, we find punishments ordained "for mixing impure with pure commodities, for *piercing* fine gems, as diamonds or rubies, and for *boring pearls* or inferior gems improperly."

"All woven cloth, *dyed red* cloth made of

Sana, of cshuma bark, and of wool, *even though not dyed red*, are prohibited the mercantile Brahmin." Ibid.

That the ancient Indians also knew how, by fermentation, to obtain ardent spirits is evident from the frequent prohibition of intoxicating liquors enjoined on the Brahmin tribe.

"*Inebriating liquor* may be considered as of three principal sorts; that extracted from dregs of sugar, that extracted from bruised rice, and that extracted from the flowers of the Madhuca: as one, so are all; they shall not be tasted by the chief of the twice-born." P. 320.

There are scarcely any of the mechanical branches of trade, especially those of a more costly kind, in which a knowledge of chemistry is not more or less necessary; and these have ever flourished throughout India in earlier times and in a higher degree of perfection than in any other country of Asia. In short, the philosopher wanted chemistry for experiment; the artist for practice, in a thousand different ways. It opened the path of the former into the inmost recesses of nature, and taught him to imitate her various and wonderful power of resolving, separating, combining, and transmuting, the elementary particles of matter that compose the vast globe which we inhabit. It enabled him to account for phænomena otherwise utterly inexplicable;

he no longer beheld with superstitious horror the bursting volcano, the *aurora borealis*, and other terrific meteors; he soon learned himself to roll the thunder and launch the lightning of Jove; he stole fire from heaven, and lighted up, in the laboratory, a creation of his own. The latter matured the projects and realized the hopes of the philosopher. By practical chemistry he extended the bounds of mechanic science, he widened the field of commerce, and strengthened the bands of social intercourse.

A variety of proofs of this kind have been already adduced. A few more, and a general summary of what has been observed on this head, shall now be added, and conclude this article.

Like the Phœnicians, their rivals in whatever concerned trade and the arts, the Indians had arrived at considerable excellence in making glass, *vasa murrina*, or *murrhins*, a species of elegant porcelain, much in request among the higher order of Romans, and artificial gems of various colours, which were often fraudulently imposed on strangers for genuine ones. They were also celebrated for their curious work in horn and ivory, and their being able to soften down those hard substances to receive impressions of Avatars and other figures, their inlaying them with different precious stones, and

staining them with the most beautiful colours, are all processes intimately connected with this science. Various kinds of dyed leather are repeatedly mentioned in the Institutes, and therefore they must also have known the method of tanning and colouring that commodity; and we have already mentioned the vivid and durable colours, particularly the *red* and the *blue*, for which their cottons and silks have been so famous in all ages; but these colours could not have been obtained, or so indelibly fixed, without a very high advance in chemistry. Their ability to obtain *arrack* and other intoxicating liquors by fermentation; their method of extracting sugar by coction, from the cane; of oils, unguents and essences, by distillation; or assaying and refining metals; of enamelling; of lacquering; of gilding; of varnishing; of japanning; of making the finest porcelain; of fabricating artificial fire-works and gunpowder; are all so many direct proofs of what is here contended for. In short, trade, like agriculture, is indebted to chemistry for nearly all the various tools and utensils used in its innumerable branches; and without it, the painter, the potter, the sculptor, the carver and gilder, all the classes of working smiths whether in gold, silver, copper, or iron, the tin-man, the pewterer, the plumber, the glazier, the distiller, (and all these trades are

occasionally alluded to in the Institutes,) could not have pursued their respective occupations, those occupations let it be still remembered, in which they were unchangeably fixed by the Indian legislator twelve or fourteen hundred years before Christ, when in most other countries CHEMISTRY was in a state of comparative infancy.

CHAPTER II.

HYDRAULICS.—*The great Veneration paid by the Indians to the aquatic Element, in great Part the Result of their physical Investigations into its Properties and Qualities.—The Obligation they were under of forming vast Reservoirs, in various Regions of Hindostan, remote from the great Rivers, and of raising by* PUMPS *and conveying by* CANALS *the Waters to their Rice-Grounds, necessarily rendered them acquainted with the Principles of this Science.—Their Manufactures, also, especially their chemical Processes in Medicine, Distilling, and Dying, required* SIPHONS *and other hydraulic Machines.*—PNEUMATICS.—*This Science intimately connected with their mythological Superstition.*—INDRA, VAYOO, *and their stormy Attendants, only the* ATMOSPHERIC PHÆNOMENA *personified.—The great Vicissitudes of Weather that take Place during the different Seasons in so vast an Empire and so varied a Climate; one Region chilled with the Snows of Caucasus, and the other parched with equatorial Fervors; The tremendous Tornado, and the pestilential Blast rendered the ancient Indians too well acquainted with those Phænomena.—Their metallurgic Operations required the Aid*

of vast BELLOWS *for their Furnaces.—Their Mines could not have been explored and wrought without* AIR-SHAFTS *and other pneumatic Machines, nor without greatly enlarging their Knowledge in this Branch of Science, which they made useful in the Mysteries practised in their subterraneous Caverns.—Probably not unacquainted with* ELECTRICITY *and* MAGNETIC ATTRACTION.—— PAINTING. —*The exquisite Beauty of the Flowers and the brilliant Plumage of the Birds of Hindostan had the Effect to make the Indians* PAINTERS *in very early Periods, as well as to give them a decided Superiority over all the ancient World in the vivid Lustre of their* DYES.—*Their peculiar Method of* PAINTING *on* COTTON *described from Pliny and modern Authors.—A short History of their* SILK *and* COTTON *Works.—Their ancient Manufactures of* PORCELAIN *and* COLOURED GLASS.—*Additional Observations on their* SCULPTURE *and* ARCHITECTURE.——ENGRAVING ON GEMS.— *The high Antiquity of this Art in India.—The Kind of precious Stones principally selected for this Purpose, and the Devices engraved on them.—The infinite Variety and Neatness of their* JEWELLERY *and* GOLD WORK.

HYDRAULICS.

THE lotos, suspended aloft in a thousand temples of India and Egypt as the picturesque symbol of that humid principle, which the emanation of the eternal beam, piercing the darkest recesses of the chaotic waters, animated and rendered prolific, demonstrates the strong traditional veneration for the aquatic element, which descended down to the generations of Asia from the first speculative race of human philosophers. Their conceptions concerning the union of these two grand principles, and the consequent generation of all things, were sometimes expressed by flames issuing from the calix of the lotos, sculptured in form of a vase, which indeed its natural shape greatly resembles; and, at others, that calix is encircled with a radiated crown of flames, just mounting above the burnished edge, to mark the superior energy of fire over water. This is the invariable meaning of the ancients, when either Brahma, Seeva, Osiris, or Horus, are portrayed sitting upon that sacred plant: they are only emblems of the solar fire warming and invigorating the chaotic waters. This their constant and immemorial deification of the ele-

ment of water, and their profound admiration of the astonishing qualities possessed by it of pervading, cherishing, and dissolving all things, the effect of philosophical investigation, must necessarily and naturally have induced an acquaintance with many branches of Hydraulic science.

Indeed the doctrine of Thales, that is, of the Ionian school, *aquam esse initium rerum*, may be fairly said to have flourished in its vigour in the earliest post-diluvian sages. From the same traditional fountains, whence they obtained their information, Moses also acquired his knowledge in regard to this wonderful element; and from the Mosaic and Egpytian school it was diffused among the philosophers of Greece. From the extravagant honours which they paid to it, the first race of Indians seem to have considered water as the universal stamen, or grand elementary matter, out of which, by the aid of the *igneous* principle, all things proceeded and into which their physical researches shewed them they would all by putrefaction be again resolved. As it seemed to possess all the energetic properties of deity, they therefore exalted it to the rank of a divinity, and made it the object of their adorations. Now it can scarcely be credited, that those whose constant practice it was, (at least if we may form a

judgment of their conduct by that of their present progeny in blood and religion,) with holy enthusiasm, to explore springs and consecrated rivers, and whom necessity compelled to form vast tanks, for the purposes of agriculture, in the scorched regions of India; that those who were accustomed to hew out magnificent baths for superstitious ablutions; and who, though perhaps ignorant of the cause, witnessed the alternate swell and depression of the waters of the ocean, attracted by that moon whose resplendent orb they adored with scarcely less fervour than her radiant paramour, especially those of her philosophic race, who were situated nearer the tropical regions, where the tides rise with an awful elevation, or on the gulphs of the Ganges and Indus, the *bore* (as it is called) of which latter river rises often to the prodigious height of between twenty and thirty feet; and who had likewise surveyed and considered the stupendous column of suspended water in the phænomenon of the *typhon*, or water-spout, so common in equatorial climates; could be entirely ignorant of the properties and laws of FLUIDS. It is scarcely possible that those, who could wield with ease and skill the ponderous instruments of the forge, wanted either wisdom or vigour to fabricate many of the implements used in this branch of science,

although they might not possess the more powerful, stupendous, and complicated engines of modern times.

If what has been said above, relative to the knowledge of the Indians on this subject, should appear extravagant, I may safely shelter myself from censure under the opinion of many learned men among the moderns, who, from what the fathers of human science have delivered down to posterity concerning the chaotic state of things, and the universal fluid in which the earthy particles were suspended, have urged the high probability of the Newtonian doctrines, respecting gravity, fluidity, and centrifugal force, having been known in remotest antiquity, though afterwards, in the wreck of science and the revolution of empires, totally forgotten and lost, till revived again by that immortal philosopher. Indeed, we have seen this fact expressly asserted by Sir William Jones, in respect to the Indians, under the head of Astronomy.

The great distance of time, and the numerous revolutions that have befallen the Indian empire, added to the present deplorable ignorance of the Brahmins, leave us in doubt to what point in practice they carried their extended speculations in this branch of science: but that they were not merely *theoretically*

acquainted with it must be evident from one or two observations with which I shall conclude this head of enquiry

The great variety of artificial FOUNTAINS, some of vast magnitude, which the ancient sovereigns and great rajahs of India were accustomed to have in those extensive gardens in which they took such high delight, and the refreshing coolness of which was necessary to mitigate the heat of that burning climate, affords very evident proof that they were well acquainted with this science. They had observed that clouds, breaking on the summits of mountains, discharged upon them their watery treasures, which, sinking into the chinks and pores of the earth in those elevated regions, rushed forth with violence from their sides or at their base in the form of springs and fountains. The imitative genius of the Indian marked her plastic power, enlarged the sphere of speculation, and filled with fountains and *jets d'eau* the delicious gardens of Delhi and Agra.

But, independently of these their accurate observations of nature and her operations, they could scarcely fail of learning the great principles of hydraulic science, before the Indian empire was formed, from their Assyrian ancestors; from that Bali, or Belus, who stands nearly at the head of their great solar dynasty

of sovereigns, when they formed a part of the vast Iranian empire, which comprehended nearly a third of all Asia. In Assyria they could not fail of being well known, as every body must be convinced who has read the account given by Diodorous* of the hanging gardens of Babylon, with their lofty terraces extending gradually up to the summit of the walls, which were two hundred feet in height, and at that stupendous elevation were refreshed with water forced up by immense engines from the bed of the Euphrates.

But a farther knowledge of Hydraulics was necessary to the existence of a very large proportion of the Indian nation; and though in the course of ages, they have, in respect to this as well as other sciences, sunk down into a very degrading state of ignorance, the danger of perishing by *famine* still preserves among them a portion of the science sufficient for the proper distribution of the waters, contained in their great tanks, over the champaign country, which is represented by M. Sonnerat as universally divided into parcels of about one hundred or one hundred and twenty yards square.† In these that valued grain, the rice, which constitutes the principal food of the

* Diod. Sic. lib. i. p. 98.

† Sonnerat's Voyages, vol. ii. p. 130.

Indians, is deposited and grows up to maturity in water only; but, as the greatest part of the lands is dry and sandy, hydraulic machines were necessary to elevate and abundantly distribute that water to the thirsty plant. These machines are, indeed, extremely simple in their fabrication, but they are effective; engravings of them may be seen in Sonnerat.

Another danger equally alarming, that of perishing by *thirst*, impended over them if they totally neglected this branch of philosophy; for, in regions remote from the great rivers, they only obtain water from wells sunk to a vast depth in the sand and clay; and, from these, the necessary fluid could not be obtained except by *pumps* and other engines, of various constructions and dimensions. They could not have constructed the canals and sluices necessary to convey the water from one district to another over vast sandy plains without some proficiency in this science; nor could many of their mechanical operations, where fluids were concerned, as, for instance, when spirits and essential oils were to be extracted by distillation, be carried on without the use of *siphons*, or similar hydraulic vessels.

PNEUMATICS.

Having discoursed thus largely concerning the adoration paid by the Indians, on account of their important utility to man and life, to the elements of *fire* and *water*, it would be improper to omit noticing their equal veneration for the *æthereal* element, which was so great as to lead them to personify and exalt it into a deity under the name of Indra, the god of the firmament, a deity armed with all those formidable insignia, and invested with that unbounded empire over subject nature, which the Grecian mythologists have conferred on their Jupiter. The stormy prime minister of Indra, in the government of his wide aërial domain, is VAYOO, the god of the winds, who is expressively represented in their pictures as riding furiously from one point of heaven to the other, on a swift antelope, and brandishing in his hand a sabre gleaming like lightning.

In fact, the immense vicissitudes of climate naturally to be expected in so extensive a country as India, and the tremendous irregularities of it which actually take place in certain districts of that country, are the principal source of the great powers with which superstition

has armed this imaginary divinity; for, Indra is not always the object of delight and love to the adoring Hindoo. If sometimes he descend, like the æthereal Jove of Greece, in genial showers, he is at other times attended by a ghastly train of deadly vapours and pestilential blasts. Those who live on the coast, and feel the soothing influence of *air in agitation* in the cool and balmy breeze that blows every morning from off the ocean upon the land, have great reason to exult in the blessings bestowed by Indra; while those again cannot avoid trembling at his power, who breathe the burning atmosphere, and contend with the drifted sands, of the scorched plains of Berar. The cerulean fields, that constitute the domains of the Indian Divespiter, are in truth the scene of their wildest and, I may add, their most gloomy mythology: they are fraught with objects which excite alternate transport and dismay. The comet portentously blazing through a vast tract of illumined æther filled them with dire and inexpressible alarms; with superstitious reverence they marked the coruscations of the *Aurora Borealis*, or observed the boding meteor glide down the nocturnal heavens; and they heard the awful report made by its explosion, amidst the dead silence of night, with unutterable terror.

It is scarcely possible, therefore, to conceive a nation, who thus accurately observed the phænomena of the heavens; for, their mythological legends concerning Indra and his stormy prime minister are merely allusions to those phænomena; a nation, who from them drew presages the most important and interesting, to have been ignorant of the nature and properties of an element to which they had so minutely attended, and consequently the principles of PNEUMATIC SCIENCE must in a degree have been known to them. They must have known that *air*, not less than *water* and *fire*, served to form, as it were, the grand cement and universal bond of nature, equally pervading and cherishing the whole animal and vegetable world. On the lofty mountains, whose summits the first race of Indians, escaped from the deluge, chose for their residence, Nature, the great chemist, as well as the sun's powerful beam, acting more immediately upon the atmosphere of equatorial regions, would soon teach them its wonderful quality of rarefaction and expansion; and its density and resistless power would not fail to be discovered at the period of the monsoons, those vast and ponderous columns of air in motion, which with irresistible violence at one time ravaged the shores of the Peninsula, breaking down the

strongest trees, and, like the hurricanes of the western world, sweeping every object before them; and which at others dispersed over the deep the rich cargoes of their various commerce, the produce of the silkworm, and the jewels of Golconda. Hence, perturbed and terrified, this superstitious race beheld the aërial phænomena with reverential horror: every cloud has its directing dæmon, and every gale its atttendant dewtah. Superstition hears some perturbed spirit of the vasty deep raging in the midnight storm, and sees the angry deity launching over the Gauts the terrific and irresistible shaft of the tropical lightning.

How far the first race of Indians might carry into experiment and practice the philosophical observations thus made by them on the operations of nature in that various clime, it is impossible to decide, till their philosophical books shall have been more accurately examined; but that they were no strangers to the generative and invigorating influence of *air* acting forcibly upon other elementary matter, and particularly on the watery element, is indubitably evident, from the universal traditionary doctrine which runs through all the cosmogonies of the East, that, at the beginning of time, the *wind of God*, or *a wind from God*, (for, by this perverted title they generally denominate the

Πνευμα Αγιον of Scripture,) violently agitated the waters of the chaos and rendered them prolific. We have shown before, that the cosmogony of the Phœnicians affirms the principle of the universe to have been a dark wind, turbulent and boundless; and, in the latter part of that description, we read, that the *air* shining with *æthereal light*, by its fiery influence on the sea and earth, winds were begotten, and clouds, and great defluxions of the heavenly waters.

The ancient philosophers of India, like the stoics of Greece, who in all probability borrowed the doctrine from the Indian schools, which many of them visited or obtained them through the channel of Egypt, imagined a *fifth* element, formed of the more refined particles of igneous air, which they call the AKASS; that pure, transparent, luminous, æther, in which the planets and other celestial bodies roll. This subtile spirit, this penetrating fluid, they conceive to pervade all bodies, and to be the great principle of vitality and bond of all existence. They talk concerning it with transport; but, amidst their raptures, totally different from the atheistical fabricators of the Phœnician cosmogony, their greatest and most venerated philosophers of the VEDANTA school never forget to advert to the SUPREME CREATIVE SPIRIT of the universe from which it emaned, his august repre-

sentative and powerful agent in the animation and direction of boundless worlds.

A knowledge of pneumatic science was also, in a great degree, necessary to the carrying on many of the mechanic arts for which the Indians were so famous; and if they were so far advanced in chemistry, in the earliest ages, as there is every reason to suppose they were, they must have required, for their furnaces, machines for collecting, compressing, and discharging, the current of air, in a body forcible enough to promote their respective operations; and these must, in consequence, have been of various dimensions, from those that excited the intense flame, where the rugged ore of iron was fused, to the gentler blast necessary to perfect the exquisite work of the goldsmith and the enameller. The invention of the BELLOWS is, indeed, ascribed by Strabo to Anacharsis, the Scythian;* but is far more likely to have originated among a race represented, from all antiquity, to have been practised in metallurgic science, and devoted to those mechanic arts, which most wanted the assistance of that useful implement.

It was also utterly impossible that mines could be worked to any great depth or extent, without the assistance of what are called *air-shafts*, or certain tubes formed of wood or metal,

* Strabonis Geograph. lib. vii. p 209.

by way of vent for the discharge of fiery damps and sulphureous vapours, and the conveyance of fresh air for respiration to the miner. In those mines they learned the nature of the various species of air, and, imitating what they there observed, were enabled, amid their mystic rites, to put in practice those midnight phænomena which excited the wonder of the weak and the terror of the superstitious.

From the awful and terrific scenes exhibited in the MYSTERIES, from their acquaintance with the process of making gunpowder, and a variety of other circumstances that argue no superficial knowledge of the properties and effects of different kinds of air, it may reasonably be inferred that the old Indians were not entirely strangers to ELECTRICITY; for, in fact, that fine subtile spirit, pervading all things, that fifth element, that *akass*, as they term it, seems to be no other than what modern philosophers denominate the *electric fluid*. Indeed, Sir William Jones amply justifies this supposition in his Treatise on the Philosophy of the Indians, declaring, that, without wishing to pluck a leaf from the never-fading laurels of Newton, he discovers, in Sanscreet Authors, a great part of his admirable philosophy, especially those parts that relate to that subtile spirit which he suspected to lurk concealed, but not

dormant, in all bodies, and to cause "attraction and repulsion; the emission, reflection, and refraction of light; ELECTRICITY, calefaction, sensation, and muscular motion; and that the Vedas abound with allusions to a force *universally attractive*, which they ascribe chiefly to the SUN, thence called Aditya, the ATTRACTOR."* The mention of the doctrine of attraction naturally leads to reflections on that of the MAGNET, whose power to attract iron they must have well known, if, as there is every reason to presume, from their early voyages and their intimate connection in commerce with the Phœnicians, they had the knowledge and experience of the COMPASS in navigation, an experience which they might have obtained from Noah himself, to whom the deity probably imparted the secret of its wonderful virtues, to guide the bark which contained the precious deposit of all living creatures over the waters of the boundless ocean. Its attractive force could have excited no great surprise in a race, who, in their beautiful manufactures and ornamental furniture, made such large use of the genuine ELECTRUM; that *amber* which has ever been in such high request in the cabinets and museums of Asia, and the attractive properties of which were so well known, so much

* Asiatic Researches, vol. iv. p. 177.

admired, and so often, in their writings, referred to by the Oriental as well as Grecian philosophers.

PAINTING.

From the regions of philosophy, where much was of necessity left to analogy and conjecture, we come to fact and experience; and are now to investigate the history of the progress of the ancient Indians in arts and manufactures, especially in one art for which they have ever been famous, and with great justice, so far as a nation utterly strangers to *perspective* could obtain celebrity in this line of exertion.

It is probable that the unrivalled beauty of the objects, animate and inanimate, in the southern district of India, the gaudy plumage of the birds, and the vivid colours of the plants and flowers, forcibly impressed upon the mind of the admiring Indian, first induced him to seize the pencil, and endeavour to imitate the strokes of nature. Those colours in the tropical regions, and under the beam of a vertical maturing sun, are exalted to an uncommon height of brilliancy, and, after the rains especially, exhibit a scene the most picturesque and lovely the eye can behold.

Though their pictures, in consequence of their ignorance of the method of distributing to advantage the lights and shadows of a piece, which the European artists call *chiaro-obscuro*, are destitute of all *relief*; though also they pay very little attention to the rules of just *proportion* in delineating animal figures on the surface of silk and cotton, whatever care they might have taken in the sculptured images of human figures, in which they could scarcely be guilty of any gross offence against those rules; and though the laws of perspective, so necessary to produce effect in that art, are, as just remarked, unattended to by the Indian artists; yet the delicate strokes of the Indian pencil, especially when employed in pourtraying the lovely plants and flowers of their country, added to the vivid and permanent glow of the colours they made use of, have, in every age, gained them the admiration of all nations, who have given convincing proof of that admiration, by suffering India, in exchange for the commodities thus richly ornamented, to engross the bullion of the whole world.

Religion itself seems to have greatly promoted as well as sanctioned this art in India; for, we have seen, in the fifth volume of this work, that, from the very dawn of their religious institution, the various casts have been

distinguished by different colours, it being the indispensable duty of the Brahmin, when in the morning he opens the portals of the pagoda for public worship, at their entrance, to mark the crowd of votaries on the forehead with the TILUK, a painted longitudinal or parallel line, either of vermillion or saffron, as they may happen to belong to the sect of Veeshnu or Seeva. Brahma, Veeshnu, and Seeva, are themselves painted of three distinct colours; and indeed all the deities in their pagodas are gaudily decorated in the same manner as were those of their forefathers, the Chaldæans, according to the imagined colours of their seven *dii majores*, the planetary train.

As I am bound by my proposals to compare the progress in scientific attainment of the Indians with that of their Asiatic and Egyptian neighbours, I shall take that parallel survey previously to any particular discussion of the processes employed by the Indians in painting on silk, cotton, and other materials.

Plato is of opinion that the Egyptians had practised painting during ten thousand years.* Pliny, somewhat more moderate in his calculation, fixes the period of its commencement at six thousand years † before his time. What particular object either of these authors could

* De Legibus, Dialog. 2. † Pliny Nat. Hist. p. 301.

have in view, by pretending thus accurately to determine the epoch in question, it is difficult to say; but, in various preceding accounts of Egyptian remains, presented to the reader from Pococke and Norden, we have seen, that, both on the roofs of the temples of the Thebais, and on the walls of the grottoes that border on the Nile, the colours and gilding, after the lapse of nearly three thousand years, had preserved unimpaired their dazzling brilliancy. This singular phenomenon may in part be explained by the clearness of the atmosphere in a country where scarcely a cloud obscures the horizon, and where very little rain falls, and partly by the superior excellence and durability of the colours themselves, which, in all likelihood, they obtained from India, or rather brought with them when their ancestors first emigrated from its shores; since the RED and the BLUE, the standard colours of that country, are particularly noticed by those travellers as the predominant ones.* Those celebrated writers of antiquity, therefore, by such strong expressions, could only have meant to deliver it as their opinion, that, for the depth and freshness of the colours, they were well calculated to have lasted during those extended periods. To be

* Lucas, vol. i. p. 99. Pococke, vol. i. p. 199. Bruce's Travels, vol. i. p. 126.

convinced, indeed, of that superior excellence, we need only attentively examine the hieroglyphic painting on the mummies in the British Museum, which cannot be of a date greatly inferior to three thousand years; for, both the gilding on the face of the one, and the pictured imagery on the other, are as fresh as if not above a century old.

If we cast our eye back towards Assyria, in the temple of Belus, as described by Diodorus, we shall find a very early and astonishing specimen of this art in Asia. The hand of the painter had decorated the walls and the cieling with emblematical designs allusive to the birth of nature and the first principles of things: some of the figures, like those of India, combining in one androginous body the two sexes, an undoubted perversion of that text, *male and female created he them*; and others being compounded of the parts of man and beast. This marked resemblance in the symbolical paintings of the two nations affords another striking instance of the truth of the grand pervading argument of these volumes, founded on the basis of Scripture, that Chaldæa (not Scythia, as Bailli contends) was the parent country of the Indians as well as of the whole human race. Let it not be forgotten that they could not have formed these vivid colours, or

fixed them so immutably, without a very considerable advance in chemical science. The figures in these pieces of imagery were doubtless very rudely designed and ill proportioned, such as might be naturally expected in the infancy of science; but the energy of the expression and the lustre of the colours are not affected by this concession.

A farther evidence of the progress of the Assyrians in this art is afforded in the *paintings* which are recorded by the same author to have decorated the walls of the magnificent castle and palace, afterwards built, by Semiramis at Babylon, on which were painted, to the life, all the kinds of animals in their natural colours; and, as these colours are expressly said by Diodorus to have been laid on the bricks, *when newly made*, and afterwards *burnt in*, it shews that they understood the art of working in ENAMEL. We must not wonder, therefore, to find the Indians, in a few ages after, excelling in this kind of work, as well as in the manufacture of the finest porcelain.

With respect to Persia, I consider what in preceding volumes has been related concerning the splendid decorations of the roof of the cave of Mithra, the *blue* vault spangled with stars of *gold*, the zodiacal constellations which emblazoned the walls, and the animals of that

zodiac, all in their natural *colours*, as alone affording very ample proof of their advance in this art. That remarkable theological symbol, also, which they used in those caverns, the ladder, with the *seven* gates named from the *seven* metals, ascending to heaven, may serve to prove that they knew sufficient of chemistry, even at that early period, to exalt and to fix those colours. Hence the Persian works in embroidery, their rich tapestries, and carpets of flowered silk, were in not less high request through all antiquity than the painted cotton and fine linen, or *sindon*, of India. Before I quit this subject, I cannot help remarking the striking similarity between the ladder that reached to heaven, in Abraham's vision, and this symbolic ladder of the Persian magi. Terah, the father of Abraham, must have been skilled in metallurgic science; for, he was a maker of TERAPHIM, *i. e.* of idols cast in brass or copper, under the aspect of certain planets. Either, then, Abraham, seizing this idea of the magi, sanctioned a symbol, which was only a harmles, but expressive, emblem of the gradual ascension to heaven of the purified soul, in the immortality of which the Persians believed; or, what I own is more probable, the Pagans from his dream caught the image, and introduced it into the mysterious rites of their de-

graded superstition. At all events, the fact proves the high antiquity of the symbolical allusion, and not less of their chemical knowledge, since Abraham flourished near two thousand years before Christ.

To return to the Indians; and to consider, first, their method and the materials used in painting on cotton. The more pure from mixture, the more lively and beautiful, though not more permanent, are said to be the colours. In their first efforts to excel in this line, the Indians probably used only the simple expressed juice of flowers and shrubs, the most vivid they could select. Fossil earths of various colours, as ochre, the yellow and the red, might afterwards be employed; and, lastly, as they advanced in chemical knowledge, minerals lent their aid to exalt their tints, to give them stability, and increase their variety. The two prevailing colours on the silks and cottons imported from India are the deep blue and the bright red; and the basis of these is well known to be *indigo* and *gum-lac*. Indigo is formed from the leaves of a plant, which grows about two feet high, called Indicum by the ancients, from the river Indus, down which it was brought from Lahore, of which city formerly it was the staple commodity. Its native appellation is NILI, *literally* BLUE. The finest sort is however

cultivated about Biana and Agra, and the colouring substance is the *fecula*, or dregs, made by means of water and oil-olive out of those leaves. It is brought to us in cakes of so intense a blue as to appear almost black; in consequence of which, when employed by the painters, it is obliged to be ground up with white, or it could not be used with effect. That species which is brought from the West Indies is of inferior fineness to what is imported from the East; for, it is made of the whole plant, stalk, and leaf, macerated together, and consequently has many impurities blended with it. The West-Indian species is, therefore, only used in dying, while the finer sorts of indigo are still used by painters both in Asia and Europe. To render indigo in this country totally soluble for the purpose of dying, it requires an equal quantity of *fixed alkaline salt*. On digesting this with a gentle heat, the matter first appears copper-coloured, then of a deep green. The substance dipped in it comes out perfectly green; but, when exposed to the air, almost instantly changes to a fine blue.

The *gum-lac*, or LACCA of the ancients, has been mistaken for a vegetable production, but is in fact an animal substance, somewhat of the nature of cochineal, and is the production of an insect, resembling a bee, which deposits this

glutinous sediment on the branches of certain trees, adhering to which it is brought to us, and thence bears among commercial men the technical name of *stick-lac*. The colour is obtained by simply boiling the stick-lack in water, then filtering the decoction, and evaporating the superfluous humidity. With these two colours, but not these only, since India affords innumerable other vegetable as well as mineral substances adapted to the purpose, are the beautiful calicoes produced in her looms, painted or stained; and, though the ingenuity of European artists, with the aid of highly improved chemistry, have, in the place of these beautiful and durable colours, invented others possibly better adapted to painting in its present advanced stage of excellence, when the gradation of light and shade in pictures is to be so distinctly marked, yet none have hitherto rivalled those of India in united brilliancy and permanency; and could the genuine Oriental *indigo* and *lac*, in their purest state, be obtained, they would perhaps still prefer the former to the best ultramarine and Prussian blue, and the latter to even vermillion, carmine, and all the factitious *lacs* in the whole class of red colours. In the practice of the Indian artist, however, there is no vicissitude; the mode of painting and dying used twenty centuries ago, when Greece

and Rome exhanged their hoarded bullion for her productions, still prevails; the cottons are prepared by some chemical process, unknown in Europe, to receive the various colours intended to be impressed either by the pencil or in the vat, and they retain them, while the substance on which they are impressed exists, with little alteration.

To be more particular in regard to their mode of painting the cottons in India. M. Sonnerat, after confirming what has been just observed concerning the brilliancy of the colours being heightened by some previous preparation, and the quality of the water in which the linen is whitened, adds, "When the outline is drawn, the linen receives the first washing: an ordinary workman then extends it on the ground, and, sitting down, puts on the principal colour. After a second washing, a more skilful artist extends the cloth on a small narrow table, and marks the shades. Their pencils are made of a piece of BAMBOO, pointed and split; an inch above the point is a cushion of wool, to retain the colours, which the artist presses to make the liquid descend the length of the reed."* In the dying of cottons of different colours, an art practised by ancient as well as modern Indians, a still greater pro-

* Sonnerat's Voyages, vol. ii. p. 122.

ficiency in chemistry was necessary to fix the various tints. In painting these cloths they undoubtedly pursued a process somewhat similar to the Egyptians, so minutely described by Pliny: after having drawn the outlines of their design upon the piece of linen, they filled each compartment of it with different sorts of gums, proper to absorb the various colours; so that none of them could be distinguished from the whiteness of the cloth: then they dipped it for a moment in a cauldron, full of boiling liquor prepared for that purpose, and drew it thence painted in all the colours they intended. And, what was very remarkable, the colours neither decayed by time nor moved in the washing, the caustic impregnating the liquor wherein it was dipped having, during the immersion, penetrated and fixed every colour intimately through the whole contexture of the cloth.* Thus was the variegated *veil of Isis* manufactured; thus were the linens that folded the Egyptian mummies stained; and thus only could the chintzes of India receive their beautiful and varied dies. De Pauw asserts, that, with the Egyptians, only one dark dye was used; and, by the aid of *acids* and *alkali*, the cloth received three or four different tints. It was necessary, he adds, to trace previously all the

* Plinii Nat. Hist. lib. xxxv. cap. ii. sec. 42.

figures with a feather or a pencil, that the *caustic* and *alkaline* liquids might be distributed exactly on the places where they were intended to produce effect.*

How very early the ancients were acquainted with the art of extracting colours from vegetables, and applied them in dying, may be learned from Genesis, where it is said, that, to distinguish the first-born child of Tamar, *the midwife tied a scarlet thread about its arm.*† This, it will be observed, was in the eighteenth century before Christ; and in the time of Moses, two or thre centuries after, we read in the following passage not only of the great progress of the ancients in the art of dying, but in several others intimately connected with the subject of these Dissertations.

And this is the offering which ye shall take of them; gold, and silver, and brass,

And blue, and purple, and scarlet, and fine linen, and goats' hair,

And rams' skins dyed red, and badgers' skins, and shittim-wood,

Oil for the light, spices for anointing oil and for sweet incense,

* De Pauw's Philosophical Reflections on the Egyptians and Chinese, vol. i. p. 206.

† Genesis, cap. xxxv. v. 28.

*Onyx-stones, and stones to be set in the ephod and in the breast-plate.**

At the same time how very familiarly the ancients must have been acquainted with some cyemical process for permanently fixing colours is evident from Arrian, who relates, that, amidst other spoil found at Susa by Alexander, were five thousand quintals of Hermione purple, which exceeded that of Tyre in beauty, and had been hoarded up there by the Persian sovereigns during the space of one hundred and ninety years, but the colour of which was as fresh and beautiful as if just come from the dyer.

Thus far have we considered the progress of the ancient Indians in the art of painting on cotton: their silks were probably enriched with the same splendid colours, in a way as nearly similar as their different texture would allow.

After all it is by no means clear that the Indians do not possess, traditionally handed down to them from their ancestors, some secrets relative to this subject which they have not imparted to foreigners. By means of the commerce which they anciently carried on with the Phoenicians they might have learned those secrets; for it has been suspected that the TIN which they so abundantly imported from the Cassiterides, or British isles, was made useful in their

* Exodus, cap. xxv. v. 3–7.

famous purple, and that they greatly exalted and fixed the colour by solutions of that metal in the dying materials.* What was really known to the Romans concerning the mode of dying the Tyrian purple has been very minutely detailed by Pliny, who informs us that after having procured from the MUREX, or purple-fish, a quantity of the colour sufficient for the purpose, they mixed it with salt, in which condition it remained during three days. To eight gallons of water they then added one hundred and fifty pounds of colour, which they boiled over a gentle fire, skimming the surface of the liquor from time to time, and occasionally dipping in it a lock of wool to mark the progress to maturity of the *materia tinctoria*. In about five hours it became perfectly clear, bright, and fit for use.† The prepared wool was then steeped in the dye five hours; it was then taken out, dried, carded, and again soaked in the vat; and, being once more dried, was delivered to the manufacturer to be spun and wrought into cloth. This was the celebrated Διϐαφα, or double-dyed Tyrian purple, a pound of which, we are informed by the same author, was valued in Rome, at a *thousand denarii*, or upwards of thirty-two pounds of our

* See Pryce's Mineralogia Cornubiensis, p. 17.

† Plinii Nat. Hist. lib. ix. cap. 38.

money.* Whether the Tyrians, however, were or were not accustomed to use solutions of the metals for this purpose, it has been observed by a good judge in these matters, as a thing *extremely probable* at least, that the Indians of the present day, to impart the fine, bright, and durable colours to their calicoes and chintzes, make use of metalline solutions, since some of those stained calicoes having been kept for forty or fifty years, the bright colours have been observed to *eat out* the cloth, exactly in the same manner as the corrosive acid spirits, which dissolve metals, are found to do; and hence he concludes that it would be attaining to a high excellence if European artists, in painting and staining, could prepare the finest colours without employing either *acid* or *alkaline* salts, which are generally apt to prey upon the cloth, or other substance, stained with them.†

But, leaving the region of ingenious conjecture, we come in the second place, to consider the still more curious manufacture of SILK by the Indian mechanic, a manufacture for which they were as immemorially famous as for their admirable Sindon.

The little animal, the BOMBYX, that pro-

* Plinii. Nat. Hist. lib. ix. cap. 39.

† Dictionary of Trade and Commerce; article Calico.

duces this delicate thread, is scarcely less a wonder in the world of natural history than its production formerly was in the commercial world. The body of this insect, a species of the *phalæna*, is composed of a great number of elastic annuli, closely united, or rather interwoven with one another, and its heart, or rather a series of numerous hearts connected together, extends the whole length of its body. The beating of this chain of hearts, or rather, to speak more philosophically, the motion of *systole* and *diastole*, may be very distinctly perceived; and to observe the manner in which the vital fluid passes from one to the other forms a very curious and interesting spectacle. They were doubtless intended to accelerate the circulation of the fluids through the body. In the cavities of the belly, adjoining to the ventricle, the microscope discovers an infinite number of small vessels, forming a long bag or canal, in which is deposited the glutinous liquid whence the silk is formed, and these vessels communicating by a thousand winding meanders with the mouth, the little creature is enabled thereby to collect together and discharge at pleasure their contained fluids, which are hardened by the air into that delicate sort of fibre of which the web or ball consists. This little ball is the last effort of the expiring

insect, whose short period, at least in that state of its existence, is a year, and it is fabricated at the expense of its *being*, as a worm; for, having formed its nidus, it becomes metamorphosed into an aurelia, and continues in that state without any signs of life or motion, till in a few days, if not destroyed, as they generally are to prevent the ball being injured, it becomes a butterfly, and makes its way out of its silken sepulchre, in which it lay as it were interred, into fields of æther. These balls, when taken from the mulberry-trees from which they are suspended, are generally of the size of a pigeon's egg, are of a yellow colour, of an admirable construction, and are said to be composed of threads spun out, by the labour of the indefatigable architect, of many hundred yards in length.

Having thus described the curious animal from which this valuable article of Eastern commerce is produced, we come to the consideration of the commodity itself, the mode of its fabrication by the Indian artist, and other interesting matters connected with its history.

Silk derives its Latin name of SERICUM, from the *Seres*, a nation of northern Asia, by whom were doubtless intended the Chinese; but of the history of the commodity itself, or of the people who manufactured it, the Romans seem

to have been alike ignorant. Some of them considered it as the white down growing on the leaves of a certain Eastern tree; while others thought that it was produced from the entrails of a kind of spider, which they denominated SER; but all had very confused notions relative to its origin and fabrication. The small quantity of silk then produced by Serica was probably brought by caravans over the deserts, to the more western marts of Asia, and thence diffused among its luxurious sovereigns and nobles; for, in those early periods, it was only appropriated to the highest orders of society. I cannot, however, help being of opinion, that Serica was neither the original country whence silk was brought, nor that in which it was then most abundantly produced. The general principle on which this book proceeds leads to a different conclusion, and India appears to be the parent country of that valuable manufacture. How early, indeed, both the occupations above mentioned of cotton and silk weaving must have commenced in India is evident from this circumstance, that in the important account of Hindoo classes, from Sanscreet authorities, in the fifth volume of Asiatic Researches, express mention is made of the tribe of *weavers*, under the title of TANTRAVAYA, in the original grand division of the Indian nation by MENU. The author

justly remarks, that "the tribes of PUNDRACA, *feeders of silk-worms*, and PATTASUTRACARA, or *twisters of silk*, deserve particular notice; because it has been asserted, that *silk* was the produce of China alone, until the reign of the Greek Emperor Justinian, and that the laws of China jealously guarded the exclusive production."* The frequent mention of silk, however, in the Institutes, and other the most ancient Sanscreet books, (even according to the confession of this author,) does, in my opinion, go very far to prove the superior antiquity of this branch of manufacture among the Indians, from whom the Chinese, when they emigrated, carried away with them the rudiments and utensils, as they did of many others. It was, indeed, impossible from the nature of the country, intersected with rivers and abounding with marshes, that China could have been inhabited and cultivated in earlier periods after the deluge than Persia and India, (famous in all periods for *silk* and *brocades*,) and the invention is therefore here, I trust, justly referred to the most ancient settlers. The region about *Serbind* in the soobah of Delhi, a soobah mentioned in the Ayeen Akbery as *abounding in silk-worms*,† was probably the

* Asiatic Researches, vol. v. p. 62.

† Ayeen Akbery, vol. ii. p 106.

country where the first silk-manufactories were established, and *must* consequently be the *Serinda* whence, Procopius informs us, *silk* was brought in the time of Justinian.

The first step taken to prepare the silk for the manufacture is to clear it of the gummy substance which adheres to it, and which is done by throwing the balls into a cauldron of boiling water, which relaxes and purifies it; and then *winding* and *reeling* it off, as it is termed, into skeins on proper frames, which are alike simple with those on which they card and spin the cotton threads, and are used with similar dexterity by the pliant and rapid fingers of the Indian artist. It is then bleached, or blanched, by being repeatedly steeped in the lees of the burnt ashes of certain Indian plants, together with those of soap, mixed with a small portion of indigo, which gives the bluish cast always observed in white silks. The *throwster* then performs his task by reiterated twistings of the threads; after which it is consigned to the weaver to be formed into vests, sashes, and other ornamental fabrics for apparel and household furniture.

The process of *dying* the silk commences with a second decoction, and scouring of the substance again with soap-lees; after which it is steeped in alum-water, preparatory to re-

ceiving the various colours which that salt is useful in fixing. The *painting* of the silks is done in the same manner as the cottons, with the difference only of abler artists and more delicate pencils being employed. The *weaving* it into tapestry and carpets, an art in very early practice among the Indians and Persians, is among the most curious and elaborate efforts of Indian ingenuity, and, the silk being the finest in the world, the work would be the most valuable of any produced by the artists of Asia, were the elegance of the *design* and the justice of the *perspective* at all correspondent to the fineness and beauty of the materials. The greatest part, however, of the silk produced in Bengal and other parts of India is exported *raw*, and in its original yellow colour. In this state many thousand bales, weighing after the rate of one hundred and fifty pounds each, are annually imported into Europe, and evince as well the immense quantities of silk-worms bred in that country as the unwearied industry of the natives in the cultivation of them.

PORCELAIN, GLASS, and COLOURED STONES.

The great number and variety of the species of *argillaceous earth*, which abound in this region of Asia, together with the plastic property of clay, when merely moistened with water, would naturally lead the Indians to engage in works of pottery, which afford so excellent an opportunity of indulging a fancy peculiarly lively as theirs, in the fabrication of ornamental vases and other elegant articles adapted either to domestic use or foreign traffic. Devotion operated as powerfully towards advancing this kind of manufacture as the former; it taught them, as yet strangers to sculptured images, to mould the figures of their avatars, and all the symbols of their complicated mythology, of the purest kind of this brilliant clay; to harden them in the fire; to cover them with gold and azure, the colour of the sun and skies from which they emaned; and to exalt them on high in their abodes, as a kind of guardian *penates*, the conspicuous objects of their reverential respect.

Though their first efforts in clay and plaster must of necessity have been very rude; yet time, practice, and increasing idolatry, could

not fail to improve the Indian artist in this as well as other branches of mechanics; and they would make gradual advances in it till they were able to complete those more elegant specimens of skill, in porcelain, which were so highly valued by the old Romans; for, the *vasa murrhina*, though by some considered as fabricated of *chrystal*, and by others of *agate*, were, doubtless, only a finer species of Oriental porcelain. These, we are told by Pliny, were in such high request in the capital of the world as to be estimated, some that held three sextaries only, at *seventy*, and others of still larger dimensions, at *three hundred*, *talents*.*

Martial calls these vases *pocula maculosæ murrhæ*, *i. e.* cups formed of the earth *murrha* with variegated spots blue and red, on a white ground, which their skill in fixing colours by fire would easily enable them to insert into the very substance of the murrhins. The *murrha* is said to have been a fossible production, principally found in Carmania, on the western borders of India, and in Parthia, so that the Indians were probably potters before they quitted their first residence in Persia. At least the occupation of the *potter* repeatedly occurs, as the reader must have observed, in the extract from the Institutes; and there is a particular

* Plinii. Nat. Hist. lib. xxxvii. cap. 2.

class, or cast, formed on the first division of the Indians as a nation, denominated CUMBHA-CARA, literally *the potter.** We know, also, from the report of the Athenian ambassadors, who visited Persia before the invasion of Alexander, that υαλινα εκπωματα, or *vessels made of glass* or *porcelain*, were daily used in the luxurious court of Susa;† and, as we hear of no potteries or glass-manufactures established among the Persians, they probably were indebted for them to their connection with India. When the ancients mention glass, it is to be feared their precise meaning is not always very clearly to be ascertained; and, in this instance, the murrhins of India were most likely to have been meant by the Greek words cited above: υαλινα, however, is sometimes used so signify *chrystal*, and chrystal vases were equally the production of the Indian artists with the *vasa murrhina*. It was in Pompey's triumph that this latter splendid species of porcelain was first exhibited at Rome, and the specimens thus displayed, probably of great magnitude, were, for their high value, afterwards dedicated to Jupiter Capitolinus. But the luxury and extravagance of the Roman nobility did not permit them to continue long without these beautiful

* Asiatic Researches, on the Hindoo Classes, vol. v. p. 56. London, quarto edition.

† Aristophanes, Acharn. 1, 2.

ornaments to their tables and sideboards; however, their value decreased not in proportion as they grew more common, and they seemed still to be considered as precious at least as golden cups.

> Surrentina bibis? nec *murrhina picta*, nec aurum
> Sume; dabunt calices hæc tibi vina suos.*

The murrhins resembled also Oriental porcelain in bearing hot liquors without breaking; for, the same author, in another passage, tells us,

> Si calidum potas, ardenti *murrha* falerno
> Convenit, et melior fit sapor inde mero.†

I cannot but consider the inventive nation of the Indians as the masters of the Chinese in this and many other branches of manufacture; first, because Sir William Jones, as we have seen above, considers the latter people as emigrated Indians; and secondly, because in the above extracts from the institutes, mention is expressly made not only of the potter, but of sacrificial *vases of stone*, that is, earthy and siliceous substances formed by fusion into porcelain; and there is no authentic book of similar antiquity which mentions porcelain as then fabricated in China, though the Chinese have now secured to themselves, from having discovered in that more eastern region of Asia a finer earth

* Martial, lib. xiii. 110. † Ibid. lib. xiv. 113.

denominated by them KAOLIN, nearly the whole of this lucrative commerce. In fact, there is no mention of porcelain as a manufacture of China in any existing author that I recollect earlier than the ninth century, when the two Arabian travellers, whose relations Renaudot has published, visited that country, and declare as follows. "The Chinese have an excellent kind of earth, with which they make a ware of equal fineness with glass and equally transparent."* At this, if they were in reality Indians, there can be no wonder; but if they were of Tartar origin, I make no doubt but that they copied, from their more ingenious neighbours, the mode of making porcelain as well as many other mechanic arts. For, notwithstanding all that M. Bailli and M. D'Ancarville have urged in their behalf, the Tartar hordes seem in every age to have been little better than brave barbarians.

The very respectable traveller and writer, Father Bartolomeo, is of opinion† that the ancient Indians were total strangers to the art of *making glass*, and that what they had of this commodity was imported into India by the Greeks and Romans. He allows, however, the truth of Pliny's assertion, that they well knew how to make artificial stones, and were parti-

* Ancient Relations, p. 21.

† See his Voyage to the East Indies, p. 391.

cularly celebrated for their just imitation of the BERYL.* This concession is very important; because, if they could give the colours requisite to form the imitations in question to siliceous substances or chrystal in fusion, they could not be far from the knowledge of making glass itself, though they might at the same time import, as is affirmed by the author of the Periplus in his enumeration of the articles of traffic carried on in his time between Alexandria and India, certain species of that more curious sort of vessels of glass ware which we shall consider presently, and for which the glass-houses of Diospolis were anciently in such high celebrity.† It is far more probable, however, that the first great merchants of antiquity, the Phœnicians, who monopolized in ancient periods the whole trade of India, had in those periods taught them the first rudiments of an art, universally attributed to their invention,—that of making glass from the fine sand that covered their shore; and had also communicated to them the secret of staining it of various colours to imitate precious stones; for, that they were thoroughly acquainted with the process is incontrovertibly evident from the great *column of emerald* formed by Phœnician artists, and which, according to

* Hist. Nat. lib. xxxviii. cap. 5.

† Periplus Mar. Erythr. p. 28, 30.

Herodotus, who saw it, adorned the ancient temple of Hercules at Tyre. That column was unboubtedly fabricated of glass* stained of the colour of that gem, and by night was probably filled with lamps, as it is said, amidst the darkness of the midnight hour, to have illuminated the whole of that august fabric. The learned author of the translation of Herodotus, a work equally valuable to the English reader for the fidelity of the text, and the various erudition displayed in the notes, especially those of a mythological allusion, is inclined to dispute this very early knowledge of the Phœnicians in the fabrication of glass; but he will candidly own that the voice of classical antiquity is at least very loud in favour of the judgment which assigns it to them. Among those classics eminently ranks that diligent collector of their opinions, Pliny, who not only expressly affirms what has been previously mentioned, that this ancient people first made glass from the very fine sand and pebbles on their shore, thrown into accidental fusion with the ashes of burnt vegetables that lay scattered over that shore, but, speaking of the manufactures of Sidon, intimates that they also knew the art of making *specula*,† glass mirrors; and, though they

* Herodotus, lib. ii. cap. 44.

† Plinii Nat. Hist. lib. xxxvi. cap. 12.

may not be allowed to have applied, in making them, that tin which they so abundantly imported from Britain, yet they knew how to procure, in some degree, a similar effect, by tinging the posterior surface with some opake substance, which would naturally cause images to be reflected from the superior.

The ancient mirrors, indeed, were not generally made of glass, but of metallic substances: from the context, however, it is most probable that *specula vitrea* were here intended; and the Sidonians were not the only ancient people who fabricated these glass mirrors, for they appear to have been also manufactured, at a very remote period, in the glass-houses of the great Diospolis, in Upper Egypt, in which city all the laborious operations of chemistry were carried to a high degree of perfection. In testimony of this, we have only to recur once more to those stupendous existing monuments of their skill in this respect, the mummies, some of them covered with GLASS of varied colours; on which subject, so much in point, let us again hear M. Dutens, who, on this topic at least, has certainly not advanced any thing that will not admit of strict investigation, and even of ocular proof.

" There were also in those mummies of Egypt many things besides, which fall within

the verge of chemistry; such as their *gilding*,* which is so very fresh, as if it were but of fifty years standing; and their *stained silk*, still vivid in its colours, though after a series of thirty ages. In the Museum of London there is a mummy covered all over with fillets of granated glass, various in colour, which shews that this people understood not only the making of glass, but could paint it to their liking. It may be remarked here, that the ornaments of glass, with which that mummy is bedecked, are tinged with the same colours, and set off in the same taste, as the dyes in which almost all other mummies are painted; so that it it probable, that this kind of ornaments, being very expensive, was reserved for personages of the first rank only, whilst others, who could not afford this, contented themselves with an imitation of it in painting."†

This existing specimen of their skill is extremely curious and valuable; but, if those who have recorded the history of the progress in science of the ancient Egyptians can be depended upon, they soared to a far greater height of excellence in this branch of chemical exer-

* "The ancients also understood gilding with beaten and water gold.—Æs inaurari argento vivo legitimum erat. Plin. Hist. Nat. lib. xxxiii. cap. 3. Vitruv. lib. vii. cap. 8."

† Dutens's Enquiry, &c. p. 241.

tion; for, they fabricated colossal statues of their gods and kings in coloured glass; and, according to Theophrastus, had erected in the temple of Jupiter Hammon an obelisk composed of four emeralds, that is, of glass of the colour of that gem, not less than forty cubits in height, and four in breadth.* Another colossal statue of Serapis, the Sun, nine cubits high, and consisting of one solid emerald, is mentioned by Pliny, from Apion, as in his time preserved in the labyrinth. Sesostris is also said to have presented to the king of the Lydians a statue of Minerva, composed of one emerald, four cubits high; and tradition has immortalized the great smaragdine, or emerald, table, on which the renowned Trismegistus, having engraved the secrets of the Hermetic art, caused it to be buried with him.†

Arrian, or whoever was the author of the Periplus, acquaints us, that, in the glass-houses of Thebais, they endeavoured to imitate the *vasa murrhina* of India; and that they made in abundance these false murrhins, in which they drove a considerable commerce with the Arabian and Roman merchants; but, as Pliny positively asserts that these imitative vessels were

* Theophrastus de Lapid. p. 394.

† Pliny, lib. xxxvii. sec. 19. Fabricius Bibl. Græc. lib. i. cap. 10, p. 98.

of glass, it is evident that the true murrhins were of a composition somewhat similar,—*i. e.* of a very fine species of porcelain almost as transparent as glass; but the Egyptian artists, wanting the proper materials of which the latter were made, were obliged to be content with remaining successful imitators only. The Egyptians would probably have made as fine porcelain had they possessed the species of argillaceous earth necessary; but, as I have before remarked, it was principally in the more elegant kinds of highly finished ornamental glass ware that they excelled; such were those three cups, of very curious glass, named *allassontes*, sent from Egypt by the Emperor Adrian to Rome, and which, *sicut palumborum colla*, like the NECKS OF PIGEONS, reflected, on whatever side they were viewed, a rich variety of colours, in the manner of the precious stone called *obsidianum*, supposed by some commentators to be *cat's eye*, and by others the *opal*. The Greeks, of whom the Egyptians were the masters in chemistry, soon learned of them the art of making these fictitious gems of all possible colours, the ruby, the hyacinth, the emerald, and the sapphire; for, thus Pliny, speaking of the former, observes: *fit et tinctura, ex genere* obsidiani, *ad escaria vasa; et totum rubrum vitrum atque non translucens*, PŒMATINON *appel-*

latum. Fit et album, et MURRHINUM, *aut hyacinthos sapphirosque imitatum, et omnibus aliis coloribus.**

It is time for us to return to the Indians, who are celebrated by the same writer for their skill in fabricating artificial BERYLS; that is to say, in making coloured, but not white, glass. It is scarcely possible to conceive, after a serious perusal of the previous extracts from MENU, but that the Indians were as ancient and as excellent chemists as the Egyptians; and, since all the precious stones above enumerated were native to the soil of India, as shall be shewn more at large hereafter, when we come to consider the antiquity of their engraving in gems, it is equally impossible to conceive but that, as they were first known, they were earliest imitated by the more ingenious race of Indians. The Indian sciences with their books are indeed buried in such profound obscurity, that here also we can alone argue upon the ground of analogy and conjecture; but the arguments for their having manufactured glass, in periods of great antiquity, amount to little less than certainty; for, I must repeat it, if they could make artificial BERYLS, they wanted neither means, nor genius, nor commercial incitement, to fabricate

* Plinii Nat. Hist. lib. xxxvi. cap. 26.

other similar compositions from siliceous substances; and if they were so early *potters*, it is scarcely possible, but that they could also manufacture glass vessels, though not perhaps, of such superior fineness as those of Sidon and Diospolis. The truth is, that, in all manufactures of pottery, owing to the intenseness of the fire made use of, some portion of the matter is necessarily vitrified, and the glass and pottery manufacture must have gone on together from remotest antiquity.

It is very probable, also, that the Indians understood the method of working in Mosaic; for, Philostratus tells us, Appollonius saw in India a most glorious temple of the Sun, the walls of which were of red marble, resembling fire, interspersed with streaks of gold, while the floor exhibited to the view an infinite variety of pearls and precious stones, artfully disposed in a kind of *chequer-work*, to imitate the rays of that luminary,* and which reflected back a lustre that rivalled his genuine beams. These were probably artificial stones of the kind under discussion, and this species of Mosaic work seems to have been not uncommon in the East; for, we read in Esther of a beautiful pavement of this variegated kind in the palace of Susa, when, at the great banquet given by the Baby-

*Vita Apollonii, lib. ii. cap. 11.

lonian sovereign Ahasuerus, all the riches of his treasury were displayed to the view of the people. The passage impresses the mind with the most exalted idea of the magnificence in which those sovereigns lived, and is highly worthy of insertion in a work that enters so much at large into the splendid antiquities of Asia.

And, when these days were expired, the king made a feast unto all the people, that were present in Shushan the palace, both unto great and small, seven days, in the court of the garden of the king's palace;

Where were white, green, and, blue hangings, fastened with cords of fine linen and purple to silver rings, and pillars of marble: the beds were of gold and silver, upon a pavement of RED, *and* BLUE, *and* WHITE, *and* BLACK, *marble.*

*And they gave them drink in vessels of gold, (the vessels being diverse one from another,) and royal wine in abundance, according to the state of the king.**

The Egyptians too were no strangers to this kind of elegant work in Mosaic; for, Lucan, describing the luxurious palace of Cleopatra, acquaints us,

——— *totaque effusus in aulâ*
Calcabatur ONYX.

Which can scarcely have reference to any thing

* Esther, cap. i. v. 5, 6, 7.

except the tessellated pavement, of various coloured stones, in which the ONYX abounded.

On the whole, as the tribe of CUMBHACARA, or the *potter*, is enumerated among those earliest formed, and as mention is so frequently made in the Institutes of *sacrificial vases*, there can be no doubt of very fine porcelain having been anciently made in India; and that glass, both white andcoloured, could not be unknown to a race so far advanced in chemistry as were the ancient Indians. Indeed glass is expressly mentioned in the Amarasinha, a book composed sixty years before the Christian æra, under the Sanscreet name of SURYACANDA, that is, says M. Bartolomeo, "a bright transparent mass, through which the rays of the sun can penetrate."* However, they do not seem, any more than other ancient nations, to have used it for windows; for, according to this author, they employ, for that purpose, *mother-of-pearl*, finely wrought and polished, and which is procured in abundance at the pearl-fisheries in the neighbourhood of Cape Comorin.

SCULPTURE.

Although the early progress of the Indians in *sculpture* has been already considered in

* Bartolomeo's Voyage, p. 391.

various parts of the preceding volumes, yet a retrospect of what has been advanced on so curious a subject, with a few additional strictures, may not be displeasing to the reader, in this summary sketch of their arts and sciences. *Modelling* in *clay* or *plaster* must doubtless have long preceded any efforts in this branch of science. To attempts of this humble kind, in pottery and porcelain, succeeded colossal statues hewn from the solid rock, or cast in moulds from the various ores, as their knowledge of metallurgy increased. If a due proportion and symmetry are not always so accurately preserved as they ought to be, an excuse for the artist readily presents itself in the very nature of the strange grotesque symbolical objects designated, exhibiting, in one complex form, various species, and often different sexes; figures with numerous heads and arms loaded with emblematical devices, (the vagaries of mythology,) the tusks of the elephant, and the horns of the ox; sometimes environed with serpents, and at others hung round with strings of death-heads; which bid defiance to all the rules of regular science. Many of these mythological figures, however, in Elephanta, the oldest depositary of idolatrous Indian images, are by no means contemptible in point of expression; and in particular that

terrific figure representing the evil principle, which displays aloft the emblems of the sanguinary worship paid to it, and is engraved in the sixth volume, affords no mean specimen of the progress in design of the Indian sculptor at the early date generally assigned to that cavern-temple and its singular decorations. Refinement in these arts, at that remote period, is necessarily out of the question; it was not elegance, but magnificence, that swayed the mind of the Indian artists. Their lofty conceptions of deity they conceived best represented by gigantic statues and massy symbols; and, by forming a mere bust of such stupendous dimensions as the principal figure there exhibits, [thirteen feet in height, the face five feet, and the breadth between the shoulders twenty feet,] the artful Brahmin completely effected the only purpose he had in view,—that of overawing the mind of the timid, ignorant, adoring, Indian.

In truth, these mythological sculptures, these emblematical representations of avatars and colossal deities, with their respective attributes and symbols, carved in the living rock, in subterraneous solitudes, the first temples, in the infancy of mankind, were in some degree necessary to sustain and keep alive the ardour of the pious enthusiast. The supposed presence

of the gods, in these mystical images, diffused throughout the place an unspeakable awe and an inviolable sanctity; while the choral symphonies and ever-blazing fires elevated the enraptured soul even to those stars which were the proper abode of thc sidereal deities adored by them. On the other hand, the representation of dæmons on those walls, in all the horrid forms, and with all the dreadful symbols, which fear or fancy could suggest, had an immediate tendency to over-awe the guilty mind, to expose the deformity of vice, and express the tortures of consequent remorse and despair; for, in their mythological pictures, as I have elsewhere expressed myself, with the symbolic figures of the mercy and goodness of God, were constantly blended those of his justice and his wrath. As the former were sculptured with smiling aspects, and were decorated with the ensigns of peace and protection, so were the latter pourtrayed with horrible distorted visages, and arrayed with every dreadful symbol that could alarm and terrify the beholder. These figures, converted into dæmons, under the notion of being the avenging ministers of omnipotent justice, were most to the purpose of the priest. He recited their number, he magnified their enormous power, and he awakened the agonizing terrors of his audience by impressing them

with ideas of their constant and immediate interference in human affairs.

Nor to mankind, in the improved and polished state of society, have these mythological sculptures proved without important use or sublime gratification. These rude, but majestic, remains of ancient sculpture admit us to a close view of remote antiquity. The allegorical designs which they exhibit obscurely unfold to us the history of the primitive ages; the profound arcana of their religion, the form and decoration of their temples; the dresses of the priests; and the subjects and instruments of sacrifice; they display to the eye of contemplation the first rudiments of thought, the first efforts of genius, the first dawn of the sciences. On the figured walls and embossed roofs we see the elements embodied; the passions personified; the august school, at once, of the deepest physics and the most instructive morality! The *sword* and the *bell* in the hands of one of the Elephanta figures, demonstrate that the Indians were even then METALLURGISTS; the jewels and pearls, with which the ears, necks, arms, and ankles, of many of the figures are loaded, prove that they had already explored the subterraneous regions for gems, and the bed of the ocean for its pearly treasures, and had accomplished the difficult pro-

cess of piercing precious stones; while the ZENNAR, or sacred cord of three threads, on other figures, evinces that their cotton-manufactures were already commenced. These deductions must be allowed to be just, and are very important towards determining the antiquity of the arts and sciences in India; but, at the same time, it must be owned they carry us back very near to the period of the deluge, and consequently demonstrate, I trust, the propriety of my constantly connecting, both in the present work and in the History, the antediluvian arts and sciences, by the channel of Noah and his family, with those of the earliest post-diluvian ages. Without that hypothesis, at once so rational and so consonant to the Scripture-history, which expressly mentions Tubal Cain as the first metallurgist, Cain as the first architect, Jubal as the first musician, &c. difficulties inexplicable would have arisen; and, by asserting the pretensions of the Indians to such remote antiquity, these volumes would ultimately have tended to support the hypothesis of the sceptic. For this reason I eagerly embrace the Septuagint chronology, in the first place, because, by giving a greater age to the world, it allows a more extended period for the arts and sciences to have arrived at maturity; and, secondly, because I am of opinion, that

the arguments brought by Vossius and Jackson unanswerably prove it to be the genuine chronology of the Hebrews. On this account, some zealous advocates for that chronology, as generally received, not sufficiently attentive to my views in doing this, have thought proper warmly to arraign that part of my book; but I had fully weighed the question, and on conviction adopted it as the system most reconcileable to reason and revelation. On this occasion, I must repeat that it is not for a few centuries more or less that we wage war with infidelity, but for the grand Christian code itself, which the enormously exaggerated chronologies of sceptical astronomers, could they establish their vagaries, tend utterly to annihilate.

To resume the consideration of the skill of the old Indian race in statuary, a very uncommon share of original merit (for, they certainly never condescended to be *copyists)* cannot be denied them. Without any claim to the merit of nice geometrical proportion or Grecian elegance, the figures of men and animals, engraved externally and internally on the pagodas of India, are by no means so destitute of the general outlines of the science as greatly to offend the eye, however the uncouth mythology, and the joining together of heterogeneous portions of human and brutal forms, may

insult the correct taste and matured judgment of the European spectator. If in elegance they are greatly inferior to the Grecian sculpture, they are at all events much superior to the mis-shapen statues of the Egyptian artists. Had not the Indian been chained down by the mythology of his country to a certain indispensable routine, both in design and execution, from which he dared not deviate, his progress towards maturity would have been more rapid; as, in Bartolomeo's judgment, the modern Indians want neither talents nor taste in either of those respects. The statuary, he informs us, "must make the statues of the gods exactly in the way and manner prescribed by the priests; in order, according to their opinion, that the attributes of the deity may be properly expressed. Hence it happens that the Indian statues have from four to six hands; three, and sometimes more, heads; and, in general, a very horrid appearance. The architect, however, has full scope for his genius, and is by no means subjected to the arbitrary prescriptions of the Brahmins. For this reason the Indian architecture exhibits more taste, and is much more perfect, than their works of sculpture: but I will not deny that the statuaries also make excellent pieces when they are allowed to follow the impulse of their own

genius; as is proved by the many bass-reliefs, crucifixes, madonas, vases, and other articles of ivory, which are here and there executed by the Indian artists." P. 387.

The same apology is urged by this very sensible writer for the defects, of a similar kind that appear in their paintings. In either case their genius is equally cramped, and their progress in the fine arts alike retarded.

"In regard to the painting of the Indians, the case is the same as with their sculpture. This much is certain, that no one can follow the dictates of his own genius, and paint the gods as he pleases. Every innovation of this kind is considered as an act of impiety. The Brahmin prescribes the figure and form which a statue must have: under these, and no other, it must be painted; and the least part of his care is whether these be consistent or not with the rules of art and of good taste. I have already observed, on different occasions, that the Indian mythology gives to each deity a certain surname and appellation, the object of which is to express their different qualities; and a painter, when he sketches out a god, must represent these qualities also. Thus, for example, Seeva is called the god who bears the trident; and for that reason he must be always represented with a trident in his hand. He is called, likewise, the

Conqueror of Death; and, on that account, must be delineated with a number of sabres, daggers, and sculls, lying around him, and with a man under his feet. He exhibits a horrid countenance; his mouth is distorted; his eyes seem to dart forth fire; and he has around his neck a cord on which a great number of sculls are strung. The case is the same with all the other deities, which must always be represented in such a manner as is agreeable to their character and attributes. From this it appears, that the painting of the Indians, like their sculpture, is in the closest connection with their theogony; and as the Brahmins alone have the right of explaining it, they assume the exclusive privilege of judging in regard to works of painting and statuary. As the painters are acquainted neither with the Sanscreet language nor their mythology, it has been imposed on them as a duty to consult the Brahmins; and whoever transgresses this law is punished by expulsion from his cast. This is the true reason why painting and statuary have made so little progress in India." P. 388.

Thus according to this author, has the despotism of superstition opposed an everlasting barrier to the farther progress of the noble arts of sculpture and painting in India, and prevented the free operation of talents and exertion in a

nation naturally the most ingenious and lively of all the Asiatics; a nation too, it may be added, the individuals of which exhibit in their own persons, when in the full vigour of youth and health, the most perfect models of elegance and symmetry that ever employed the chissel or animated the pencil. The reflecting mind turns with horror from a prospect so shaded with invincible barbarism; and, with increased pleasure, contemplates those distant western regions which, though less beautiful and abundant, are yet blessed with the light of liberty, and exult in the enjoyment of a nobler theology!

Since the appearance of the third volume of this work, which contained my Dissertation on the

ARCHITECTURE

of the primitive race of Indians, the ingenious Mr. Daniell has published his Designs of Indian Buildings, and, the more attentively any person considers them, the more clearly he will perceive that the Indian architecture is not, as has been idly argued, copied from either Egyptian or Persian models; but that it is genuine *Hindoo*, and, in general, the result of their own mythological conceptions. This gentle-

man, who, with indefatigable zeal in search of the architectural antiquities of India, has ascended the snowy precipices of the Sewalic mountains, and dared the tropical fervours that descend direct on the vast temple at Ramankoil on the most southern point of the Peninsula, has presented the public with a greater variety of specimens, in this line, than any preceding artist, and they will nearly all serve as a forcible comment upon what has been previously urged in the Dissertation before alluded to, in respect to the origin and progress of Oriental architecture; since, in these retrospective surveys, the *pyramid*, the *cone*, and the *oval*, perpetually recur in perfect unison with their mythological superstitions respecting the beam of the sun, the cave of Surya, or Mithra, the chaotic egg, &c. &c. There is no occasion for our retracing, in this place, ground already so amply trod over; but I cannot omit acknowleding, in this place, either my own numerous obligations to this distinguished artist, or expressing my sentiments how greatly Indian literature is indebted to his illustrative pencil.

In fact, the highest idea with which the most esteemed printed accounts had impressed my mind, added to the correct verbal relations of intelligent travellers, who have, within a few late years, visited the excavated temples

of India, and the pagodas that every where erect their majestic summits in the provinces subject to, or connected with, the British government, fell very far short, indeed, of what the magnificent sketches of Mr. Daniell must suggest to every man who attentively surveys and considers them. In general, we have been accustomed to read the Mahommedan accounts of those temples, which the desolating fury of their own barbarism has defaced in the fertile and populous districts conquered by them, and the sacred edifices of Benares, of Sumnaut, and of Seringham, excite in us the most profound astonishment. On these we gaze in the historic page with awe-struck wonder, and regard their recorded dimensions as almost incredible. It is not, however, in regions subjugated to the Mahommedan yoke, or under the jurisdiction of any foreign power, that we ought to expect to discover the most august remains of sacred architecture in India; the yet unexplored regions of the extreme southern Peninsula, to which the Islamite conquerors *did not* penetrate, buried in immense forests or embosomed in mountains of granite, contain edifices of surprising magnitude executed in the boldest style of Indian architecture; while many of the sculptures that cover them, from the summit to the base, are wrought with uncommon spirit and

elegance. Among animals thus sculptured, the bull, the lion, the elephant, and the Cobra serpent, continually occur, being the principal symbols in their mythology; the three last, as objects which they are accustomed frequently to survey, are generally well represented; but, it must be owned, the lion, being, in modern times, at least, a stranger in this region of Asia, is, in general, very inaccurately desinged. In truth, wheresoever this symbolical figure, rudely delineated as it uniformly is, occurs, we may, in general, rest assured, from this very circumstance, that the sculpture is of high antiquity.

The pagoda of Ramasseram, before alluded to, on the island of Ramankoil, dedicated to the great God Mahadeva, deserves particularly to be noticed as one of those that awe the mind by the grandeur of its elevation; and this stupendous, but secluded, temple may probably lay claim to a date in antiquity superior to most others in India; even the distant date of Rama's expedition, into these regions, to recover his beloved Sita from the hundred fangs of the gigantic Ravan, king of Ceylone. It stands close to the shore, and has felt the shock of the depredating wave, which has, for immemorial ages, been encroaching upon it. Amidst the inaccessible woods, also, that clothe the descent of the Gauts, astonishing remains of

ancient buildings are to be found, consisting of very lofty columns of excellent proportion; and erections, to some of which the romantic artists of India have given the most grotesque forms imagination can conceive. Among Mr. Daniell's specimens are also immense pyramidal masses of solid stone formed like those pyramids above Giza, where the bold projecting rock has received that figure from the incessant labour of the chissel. These, like the excavations that line the shore of the Nile, exhibit another striking instance of similitude in the architecture of the two nations; while the Canis Anubis and the Vara avatar, or Veeshnu with the boar's head, shew their parallel conceptions in sculptured imagery. For this astonishing display of so many of the prodigies of ancient India, accomplished at great personal risk and hazard, every lover of Indian science will feel the warmest gratitude to Mr. Daniell; accompanied with a sincere wish that the laudable example which he has set may be followed by other professional gentlemen in India, where a vast field for exertion is still open, and the reward will, doubtless, be proportioned to the labour.

One reflection naturally and forcibly intrudes itself on the mind, while considering these amazing fabrics; and that is, the impossibility

of teir having been erected except in those remote periods when the great Indian empire was yet unbroken by the incursion of foreigners; when one supreme sovereign MAHA-RAJAH swayed the righteous sceptre of that happy country, by noble rewards encouraging genius, patronized the rising arts, and, with a powerful hand, protected the efforts of the perservering architect. At the period of Alexander's invasion we have seen that the Indians were no longer firmly united under one puissant sovereign, no longer fought under one victorious banner; the divisions among the rajahs had long commenced, and their contempt, or at least, neglect, of the supreme head of their order, had encouraged the warlike barbarians, of every neighbouring country, to pour their armies into that debilitated country, and among that divided people. To suppose undertakings, thus vast in design and arduous of execution, could possibly be finished, or even projected, amidst the turbulence and distraction of war, would argue absurdity in the extreme. They are consequently to be contemplated as equally august and decisive monuments of the grandeur of the ancient Indian empire when flourishing under its native dynasties of princes, in meridian splendour.

ENGRAVING ON GEMS AND SEALS.

We are now, in the last place, to enter upon a subject equally curious and abstruse; an art, the high antiquity of which, at least in India, has been very much disputed, though no fact can be more clearly ascertained than its having early flourished in that region of Asia. Under a former head we have seen how early the Indians had attained the arts of design, sculpture, and metallurgy; in what remote periods they carved on wood and stone the images and avatars of the gods, and the animals and objects deemed sacred by them, the goose of Brâhma, the bull of Seeva, the garuri, or eagle, of Veeshnu, the elephant-head of Ganesa, the serpent, the lotos, and other symbols with which all the caverns abound. We have heard Mr. Halhed's judgment "with respect to the ancient coins of Nepaul and Cashmere, and the seals of Bootan and Thibet," impressed or engraved with the oldest Sanscreet characters and mythology. In the Institutes also, regulating our decision by the ascertained "age of that book, we have seen how very early they had learned the difficult process of

enchasing in gold, and of piercing fine gems, diamonds, and rubies" but we perhaps have not taken sufficient notice of the Sanscreet alphabetical writing conspicuously cut in the Elephanta cavern, and on the breast of the principal figure in the grand triple bust; for that is, in fact, ENGRAVING, and exhibits, at once, a suprising proof of the antiquity of the art and of the alphabet.

The hieroglyphics, engraved on the granite of Egypt, are the only ancient specimens of this art that can at all vie in antiquity with those of India; at that period, to have possessed instruments proper to cut them on that granite so deeply and durably, argues, in the Egyptians, no small advance in chemical science; and, in truth, as few of the inferior classes of precious stones are of a much harder substance than Egyptian granite, their being able to operate upon it may well be deemed to imply such an acquaintance with the use of those important machines in this science, the *wheel* and the *drill*, as would enable them to engrave on the more valuable gems. There is no occasion, however, on this subject, to have recourse to *conjecture*; the evidence of Scripture, in favour of Egyptian genius, is clear and express; for Pharoah, in exalting Joseph to the elevated

rank which he enjoyed in his court, is said to have given him his *ring* or *signet*,* which necessarily implies an engraving. This event took place in the 18th century before Christ, and, much about the same period, Judah is said to have given his *signet* and his *ring* in pledge to Tamar.† Afterwards we find the Jewish artists engraving, on the substance of the hardest and most valuable stones, the names and symbols of the twelve tribes of Israel, intended to adorn the ephod and breast-plate of the Jewish high-priest; the assortment of those stones was equally superb and beautiful, for Moses is thus commanded:

And thou shalt set it in settings of stones, even four rows of stones: the first row shall be sardius, a topaz, and a carbuncle; this shall be the first row.

And the second row shall be an emerald, a sapphire, and a diamond.

And the third row, a ligure, an agate, and an amethyst.

And the fourth row, a beryl, and an onyx, and a jasper: they shall be set in gold in their enclosings.‡

But what is more important to our purpose,

* Genesis, xli. 42. † Genesis, xxxviii. 18.

‡ Exodus, xxviii. 17, 18, 19, 20.

Moses is also commanded to *take two onyx-stones; and* GRAVE ON THEM THE NAMES *of the children of Israel:*

Six of their names on one stone, and the other six names of the rest on the other stone, according to their birth.

With the WORK OF AN ENGRAVER IN STONE, LIKE THE ENGRAVINGS OF A SIGNET, *shalt thou engrave the two stones with the names of the Children of Israel: thou shalt make them to be set in ouches of gold.**

Thus much was proper to be said in justice to the claims of Egypt to very high and ancient proficiency in the lapidary's and engraver's art; but the claims of India ascend far higher; and the learned naturalist, Mr. Raspe, has laboured with very great success to establish them. He has very judiciously observed that India, besides the ingenuity and mechanic turn of her sons, has *natural claims* to the invention of this art which Egypt never possessed. By natural claims, he means to say, that Nature has abundantly done that for India which she never did for Egypt; and, "from times immemorial, has produced from the inexhausted mines of her peninsula and islands, her quarries, and rivers, all the very best sorts of precious, fine, and hard stones which lapidaries

* Exodus, xxviii. 9, 10, 11.

and engravers work upon; together with every substance and material which sharpen their tools and conquer their otherwise invincible hardness;—the real Oriental diamond, at once the object and tool of the lapidary and engraver, the ruby-sapphire, emerald, topaz, chrysolite, the sardonyx, chalcedon, onyx, cornelian, jasper,—as also a particular sort of diamond-spar which cuts diamonds incomparably better than the best emery."* Egypt, he adds, had only jaspers, porphyries, and some other hard siliceous stones, of its own production; its famous emerald mines, in the Thebaic desert, are either lost or exhausted; or, according to his own and Mr. Dutens' opinion, never produced the *real emerald*; and he affirms they never had the real diamond, nor even the diamond-spar, without which the engraver could not operate.

This statement, from so high an authority as Mr. Raspse, is very forcible, and I think the arguments used are decisive, especially when the specimens of ancient Indian engraving on gems, which are exhibited in Mr. Tassie's valuable collection, are at the same time attentively considered. The first of these is a beautiful EMERALD belonging to Mr. Wilkins, and bearing the Indian SING, or lion, with a

* Raspe's Introduction to Tassie's engraved Gems, vol. i. p. 14.

Sanscreet inscription which marks it for an antique ,though it is impossible to say of what date. He speaks of the style of the engraving as bold and impressive, and equal to the best works of the old Egyptian school. The second is of LAPIS LAZULI, in the possession of Mr. Townley, representing a man and woman sitting on a kind of throne, and habited in the manner and style of the ancient bas-reliefs discoverd at Salsette and Elephanta. A third is on SULPHUR: and a fourth of ORIENTAL GARNET exhibiting figures dressed nearly similar. He has also published some zodiac figures of presumed Indian fabrication; but they are very doubtful.

Mr. Guise, late surgeon of the hospital at Surat, has also, with indefatigable zeal, collected, and recently imported into his native country, some very curious specimens of engraved seals and rings, undoubtedly Hindoo, from the symbols and characters which they exhibit. One of them, the lion, or SING, on a cornelian, rudely enough designed, but deeply cut in the stone with a lotos rising from his back; another, on lapis lazuli, of a peacock, with its tail expanded, the mythologic bird on which Carticeya rides, the Indian Mars, who leads along the radiant host of heaven, designated by its spangled plumage; and several like those of Mr. Townley, habited and throned after the manner of the Elephanta

figures, are deserving of very minute attention from the antiquary. They were dug out of the earth in the neighbourhood of Surat, and, doubtless, many more that earth conceals, which time and future research, similar to the laudable and zealous inquiry of Mr. Guise, will not fail to recover from its obscuring bosom.

M. Bartolomeo also entirely agrees with the above accounts of the skill of the old Indians in engraving seals and rings, and mentions two or three very valuable specimens which he had seen in India.

"The Indians," he observes, "are accustomed to examine the water of diamonds always at night by the light of a lamp. In Europe, diamonds are separated by sawing them; but the Indians split them, or cut them down to the proper size, —a labour in which they are much more expert than the Europeans. Some years ago, the Great Mogul had a diamond which weighed 279½ carats. It was valued at two millions five hundred thousand rix-dollars. This diamond, therefore, exceeds in value any hitherto known; for the large diamond of the Grand Duke of Tuscany weighs only 139, the Sanci 106, and the famous Pitt diamond 136 carats three grains.

"The artists of Ceylon prepare rings and heads for canes, which contain a complete

assortment of all the precious stones found in that island. These assemblages are called *Jargons de Ceilan*, and are so named because they consist of a collection of gems which reflect various colours, such as the red ruby, the sky-blue sapphire, the golden yellow topaz, called by the ancients chrysolite, the green emerald, which I found myself in Ceylon, though some assert that it is not a production of that island;* also the amethyst, beryl, opal, and garnet. All these stones may be procured at Colombo in the island of Ceylon, at Cochin and Calicut in Malabar, and at Madras on the coast of Coromandel.

"The Oriental diamonds are octagonal and sharp-pointed. This form, their colour, water, and lustre, with the liveliness of their irradiation, are the essential characteristics by which they may be distinguished from the Brasilian diamonds. The different kinds of agate, cornelians, chalcedonies, swallow-stones, opals, onyxes, and cats eyes, which, according to the

* "Dutens, in his book *Des Pierres précieuses et des Pierres fines*, p. 38, says, speaking of the emerald, that it is exclusively found in America, near *Manta*, in Peru, or the valley of *Tunka*, in the mountains of New Granada and Popayan, and was not known to the ancients. The author of this voyage asserts that he found emeralds in Ceylon, and I myself have obtained some of them from that island." —FORSTER.

system of Wallerius, belong to the *silex genus*, are not much esteemed on the coast of Malabar, though some of them are brought thither from Arabia, Persia, and the northern part of India.

"On a seal ring of the king of Travancor, which consists of a very hard and valuable stone, the following words are inscribed: *Shri Padmanàbhen*. This is one of the sacred names given to *Veeshnu*, and contains an allusion to the birth of that deity. *Shri* signifies sacred, *Padma* denotes the *nymphæa*, and *Nabhen* one who sits in the interior part of this flower. The reader will recollect, from what has been before said, that the *nymphæa* is a symbol of water, and of every thing created from it. The above words serve as a convincing proof that the Indians are certainly acquainted with the art of cutting upon stone. A like ring was in the possession of the king of Ceylon, *Vimala Dherma Suryada*, who embraced the Christian religion, and at baptism got the name of Don John of Austria. On this ring the god *Budha* was represented under the human form." P. 392 to 395.

The Ayeen Akbery has a chapter on the Indian mode of setting in gold the infinite variety of precious stones with which their country abounds, and on their curious gold fillagree work, in which they are there said to

be "exquisite artists;* as well as to charge a very high price for their operations in this branch of the profession, and Mr. Bartolomeo, in this instance, as well as the former, bears decisive testimony to their scientific skill. Indeed, when it is considered that, in India, the son never deviates from the occupation which his father pursued, through a long succession of generations, there is no wonder that the inhabitants should carry the mechanical arts to the utmost degree of attainable perfection, by a race equally ignorant and disdainful of European attainments.

To conclude; in whatever light we contemplate this wonderful people, whether as artists and mechanics, or as scholars and philosophers, we are lost in mingled admiration and astonishment; and, while we lament many of their local prejudices and blind superstitions, we cannot avoid feeling a just indignation against those successive oppressors that, in every age, have devastated their beautiful country, and finally subverted their ancient and happy government.

* Ayeen Akbery, vol. iii. p. 264.

A DISSERTATION ON THE ANCIENT GOVERNMENT AND JURISPRUDENCE OF INDIA.

A

DISSERTATION, &c.

CHAPTER I.

Ancient classical Writers very defective in Information, respecting the INTERNAL POLICY *of the Indians.—Accounted for in the Reluctance of the Indians to admit Visits from Foreigners, and in the Injunction of Menu to themselves not to pass the* ATTOCK.—*Their Relations, however, not wholly to be rejected.—The Government* MONARCHICAL, *but not despotic, and founded on the Principles of the* PATRIARCHAL.—*The unlimited Power of the Brahmins, immediately derived from a divine Source, in the Control of the regal Authority, and in the arbitrary Interpretation of the Laws, rendered it a Kind of* THEOCRACY.—*Hereditary Counsellors of the Crown, in Peace and War; all the higher Functions of effective Government, though nominally and by Law intrusted to the* KHETTRI, *or* RAJAH, *Tribe, ultimately depended on themselves.—Wisdom of the original*

Division of the Hindoos into FOUR CASTS.—*Their* DUTIES, RIGHTS, *and* IMMUNITIES, *respectively considered.—The Police established throughout the Indian Empire extremely vigilant and rigid.—The Duties of its Officers.—That Police sanctioned by a* CODE *which held out* REWARDS *as flattering as the* PUNISHMENTS *it denounced were terrible and sanguinary.*

ON the subject of the original Form of government established in India, little solid information can be expected from the *classic* page of antiquity, because a perfect knowledge of the mode in which the government of a country is conducted necessarily implies an intimate acquaintance with its history. But, concerning that history, through the whole volume of antiquity, there are scattered only the faintest glimmerings of intelligence; and this universal and continued ignorance of the ancients, in regard to the domestic history of India, is easily to be accounted for in the peculiar manners of this secluded people, who seem neither to have been anxious to visit other nations nor to receive visits from them.

In truth, forbidden, under the severest penalties the legislature could inflict, to wander beyond the limits of the country which gave

them birth; attached to that country as well by its fertility and beauty as by the necessity which there existed of his daily performing a multitude of sacred rites and ceremonious ablutions prescribed by his religion, and possibly ordained for that very purpose by the wise policy of Menu; fixed by the decree of the same legislator to a rank and class among his fellow-creatures, from which those immutable decrees allowed no possible deviation; the ancient Indian could possess little curiosity to be gratified in regard to foreign kingdoms, of whose existence, indeed, in any extent or number, his secluded situation would naturally render him in a great degree ignorant. He professed also a religion so directly opposite, in its leading principles, to those of that furious Mahommedan superstition which afterwards deluged with blood his unhappy country, that it neither sought nor admitted of proselytes; and, while he conscientiously obeyed the mandates of a system of jurisprudence, which prohibited any immediate intercourse with the individuals of all the various tribes, except his own, that inhabited his native region, he could not fail of scrupulously abstaining from the defilement inevitably consequent on an intercourse, still more strictly interdicted, with foreigners. The ATTOCK, the most western river

of the Panjab, the very name of which implies *forbidden*, was appointed by Menu to be the eternal barrier between them and alien nations, and to pass it was to incur at once the chastisement of man and the curse of God.

On the other hand, deterred by their natural reluctance to admit strangers within their cities, few travellers in ancient times penetrated far into India, and fewer still into the mystic theology and abstruse lore of the Brahmins. The vists to that country of Zaratusht and Pythagoras, for the noble purpose of investigating the principles of their philosophy, are among the few recorded in history. In respect to their commerce with the Egyptians and Arabians, that branch of it was carried on principally along the coasts of the Peninsula; and Lahore and Cabul seem to have been the utmost limits of the migration of those merchants of Upper India, who traded to Persia and Tartary. Hence it arose that such astonishing fables were circulated in the ancient world concerning this little explored country, where every thing vast and prodigious was supposed to generate and abound; of all which the credulous Pliny has been the diligent collector and the too faithful narrator.

The Indian sovereigns also, contemplated as they were by their subjects, as the vicegerents

of God on earth, with a reverential awe little short of idolatry, possessing treasures beyond calculation, and power without limit, in their hereditary domain, felt no sting of avarice, no ardour of ambition, to goad *them* to the conquest of surrounding nations whom they considered as *Mileeches*, infidels, outcasts of God, and occupying a station in the scale of humanity far inferior to themselves and the favoured tribe of the great Brahma. Over such vassals, they would have thought it inglorious to have reigned; happy would it have been for the Hindoos, in after-ages, had the Persian and Tartar sovereigns, their neighbours on the west and north, been of the same opinion with themselves!

Not absolutely relying on what classical writers have written concerning India, yet, in the course of our retrospect, not wholly regardless of their exaggerated narrations, let us consult the more accurate accounts which British diligence and zeal, in India, have recently procured for us of that country in its earliest periods, either from books or living authorities of the highest rank; let us inquire what actually *was* that government so celebrated for its wisdom and equity, and in what manner it was conducted to render it at once so lasting and so respectable.

It certainly was, in the strictest sense, *monarchical*, but with very just and severe checks to guard against the possible abuse of the powers intrusted to the ruling sovereign. The Indian monarchy, as originally established, at the same time exhibits to us in a more marked manner than most other countries of Asia glaring vestiges of the original *patriarchal* mode of government, founded on the model of the *paternal*, in which the chief of each family exercised the sovereign jurisdiction over the individuals of it, even to the infliction of death, when merited; continuing to flourish unviolated for a long succession of ages. With the regal, in him were combined the sacerdotal dignity, and a kind of prophetic sanctity of character, supposed to have descended to him from that venerable personage who was the grand fountain of all post-diluvian honours; the KING, PRIEST, and PROPHET, of the regenerated world! A band of holy Brahmins, who, like the Magi of Persia, were the hereditary counsellors of the Indian crown, constantly attended in the palace, and around the sacred person of the prince, to give him their advice in the most important concerns of his empire, to inculcate upon him the duty of a just and wise sovereign, at stated periods to chaunt the solemn hymns of devotion, to assist at the frequently returning

rites of sacrifice, and explain the omens of the blazing altar.

Though the functions of government, by the laws of Menu, devolved on the Khettri or Rajah tribe; yet it is certain, that, in every age of the Indian empire, aspiring Brahmins have usurped and swayed the imperial sceptre. A whole nation of Brahmins was found by Alexander in the western districts of India, on whom, for their obstinate opposition, that conqueror exercised the greatest severity, and even crucified their king. But, in fact, there was little necessity for the Brahmin to grasp at empire: he ruled both the empire and the monarch: he was greater out of the purple than in it. Without the immediate sanction of that tribe, in no event of national consequence did the sovereign dare to embark, either in the season of profound peace, or amidst the turbulence of the embattled field. He was invested with equal power in the palace and in the camp. He elevated alternately the olive of peace, or wielded the thunderbolt of war. Strabo positively asserts,* and his assertion is confirmed by the results of modern inquiry, that the code of Brahmin law was not originally *committed to writing*; in fact, the very name of that code, which is MENUM-SRITI, or *institutes remembered from Menu*, proves this representation to be just. Till the

* Strabonis Geograph. p. 716.

age of Vyasa they were deposited solely in the memory of the Brahmins; and to them the prince applied in all matters of difficulty. On occasions of extreme national urgency he visited them in the dead of the night, and their answers were given in all that gloomy pomp and profound solemnity attendant on the midnight hour. By an overstrained conception of the high sanctity of the priestly character, artfully encouraged for political purposes by the priest himself, and certainly not justified by any precept given by Noah to his posterity, the Brahmin stood in the place of the Deity to the infatuated sons of Indian superstition; the will of heaven was thought to be uttered from his lips, and his decision was reverenced as the irrevocable fiat of destiny. Thus, boasting the positive interposition of the Deity in the fabrication of its singular institutions, guarded from infraction by the terror of exciting the divine wrath, and directed principally by the sacred tribe, the Indian government as originally formed may be justly considered in the light of a THEOCRACY; a theocracy the more terrible, because the name of God, by this perversion, was made use of to sanction and support the most dreadful species of despotism; a despotism which, not content with subjugating the body, tyrannized over the prostrate faculties of the enslaved mind.

We are informed by Strabo, that the great body of the Indian nation was divided into *seven* distinct classes, but we know, from more authentic sources, that this division was only four-fold, that is to say, into the classes sacerdotal and regal; the tribe agricultural and mercantile; and that of artificers, mechanics, and servants. These, however, are again subdivided into an infinite variety of inferior casts, and in these, by the arbitrary mandate of their great legislator, they are bound to remain without hope of removal or possibility of exaltation. The apparent impolicy of this division has been often descanted upon, and justly anathematized as a barbarous attempt to chain down the powers of the human soul, to check the ardour of emulation, and damp the fire of genius. On that ground, it certainly deserves the severest reprobation; yet, by this arrangement, it should be remembered, the happiness and security of a vast empire was preserved inviolate during a long series of ages under their early sovereigns; by curbing the fiery spirits of ambitious individuals, intestine feuds were in a great measure prevented, the wants of an immense population were amply provided for by the industry of the labouring classes, and the several branches of trade and manufacture were carried to the utmost degree of attainable

perfection. Though the stern ferocity of Mahommedan despotism hath insulted their religion and overturned their government, yet they have not been able to rend from them the superior palm of excellence to which the curious productions of the Indian loom are so highly entitled; and the exquisite work in gold and jewellery, that passes through the pliant fingers of the Indian artist, remains still unrivalled in any commercial region of the earth.

The wide diffusion of the Sanscreet sciences, language, and mythology, over the whole eastern quarter of Asia, appears fully to justify the Brahmin assertions that the empire, in very remote periods, extended from the mouth of the Indus, west, to the Sea of China, east; and from the Thibetian mountains, north, to Cape Comorin in the south. These are the vast lines of demarkation which Sir William Jones, from the Brahmin records, sometimes assigns to the ancient empire of India; and, if Mr. Halhed's assertion be correct, "that he found the Sanscreet characters, and emblems allusive to the Sanscreet mythology, so universally engraved on the coins of Assam, Nepaul, and Cashmere, as well as on those of Bootan and Thibet,"* their claims to that wide domain

* Halhed's Preface to his Bengal Grammar, p. 3.

seem to be indubitably established; and it should not be forgotten that the very same books record the migration, near four thousand years ago, of the heretic Chinese from the bosom of the mother-country, towards the regions lying nearer the rising sun.*

This mighty empire was governed, according to their own annals, by one supreme monarch, the Maha Rajah, or Great Rajah, to whose sovereign control through its whole extent a numerous class of subordinate rajahs was obedient, and wisely to govern such an immense territory, it will readily be granted, required the full exertion of all the sacerdotal, regal, and prophetic functions with which this superstitious people have invested their first venerated sovereigns, after the flood of Satyaurata Menu. These princes, therefore, formed a chain of feudatories, governing vast kingdoms, governed, in their respective districts, by the same laws that bound the sovereign, and equally restrained by the presence and power of the Brahmins from abusing the office of chief magistrate delegated to them by the supreme Brahma and the sacred tribe, who, in the order of creation, sprang from his head, like Minerva from the head of Jove.

Nothing could have prevented the ancient

* Sir Wm. Jones's Essay on the Chinese Nation.

Indian kings, exalted and revered as they were by their subjects, from becoming despotic tyrants, but this salutary restraint upon their power, added to the powerful ARISTOCRACY which the inferior, but valiant, nobility of their own tribe composed. The Brahmin might be faithless to the trust reposed in him by his god; but the inferior rajah disdained illegal and dishonourable submission: he well knew, and, at the hazard of being and fortune, would assert, the rights of his cast. The truth is, that, whatever arguments may be urged against an overgrown aristocracy in a highly monarchical government, they constitute still the great barrier against the exorbitant power and usurpation of the crown itself. Were the natural jealousy, the consanguinity, the combined influence of a high-minded nobility, in a government, destroyed; the liberty, or rather the remains of liberty, in that state would be quickly annihilated, and complete despotism establish itself upon its ruins.

By his high office, the Marajah had the sole power of directing the national vengeance against the common foe, and of summoning all the inferor rajahs to the field, at the head of the quota of troops which every separate province was compelled, by stipulation, to furnish. The imperial army of India, therefore, when

assembled together, must have consisted of an immense body of horse, foot, and elephants; and we ought not to consider as so highly exaggerated, the account given in classical writers, that Sandrocottus, or, in Sanscreet, *Chandra-gupta*, who had usurped the throne of the ancient Marajahs on the Ganges, had raised an army, to oppose the Greeks in that quarter, of 600,000 men. This number is in perfect unison with the immense extent, power, and population, of India, at that period, and greater armies have been since brought into the field of Indian war. Strabo, indeed, from Megasthenes, informs us,* that, in his time, the great Indian empire consisted of one hundred and eighteen nations, each of which was governed by its own peculiar prince; a descendant of Porus afterwards wrote to Cæsar, then at Antioch, soliciting his alliance, and boasting, that he, at that time, reigned over 600 tributary princes, but most of these could only have been governors of cities, or chiefs of small cantons, dependent on his power. The regal honours in their families, as in the chiefs, were hereditary; they had the power of life and death, but were compelled, by tremendous obligations and the forfeiture of cast, to regulate their decisions by the grand legislative code of Menu.

* Strabonis Geograph. p. 719.

An assembly of the Brahmins, sitting in judgment on a vicious or tyrannical king, may condemn him to death, and the sentence is recorded to have been executed; but no crime affects the life of the Brahmin; he may suffer temporary degradation from his cast, but his blood must never stream on the sword of justice; he is a portion of the Deity; he is inviolable, he is invulnerable, he is immortal!

So profound, so inextinguishable, was the respect, with the dawn of life, inculcated, and, through every period of it, paid, both by prince and subject, to that code; so perfectly did every member of the four classes know and, from dread of the horrible punishment denounced against the breach or omission of them, perform the duties incumbent on his peculiar station; that, while piety and fortitude reigned at the helm, while the Maha Rajah himself continued faithful to the awful trust reposed in him, while the Brahmins remained vigilant and uncorrupted, the utmost tranquillity could not fail of pervading every quarter of the empire. Strabo, with his usual correctness, informs us, that the Indian sovereigns were obliged to shew themselves publicly to the people once a day, to hear petitions, to redress grievances, to determine differences arising among their subjects; nor could they rise from the tribunal till

all were heard, and every claim adjusted: the descendants of Timur religiously adhered to this Indian rule. In all negociations, the public faith when once plighted in any treaty was inviolably preserved. The figure of an anchor, the sacred symbol of truth and stability, was engraved upon the grand imperial signet, used upon those solemn occasions.*

While the main spring of this vast political machine performed its functions with undeviating regularity, all the inferior movements were in perfect unison with it; but, when the repeated invasion of Tartar and Persian warriors had at length shaken to its centre their ancient throne, and weakened their enormous power, a general relaxation, both in discipline and morals, took place in all the subordinate branches of the monarchy. The inferior rajahs renounced their accustomed obedience to their chief; and, aspiring to independence, in their respective districts, forgot equally the laws of Menu, and reverence for the Brahmin who ought to have enforced it; and the well-poised empire of Hindostan tottered to its foundations. Internal divisions added to the convulsion of the empire from foreign assaults, and the hostile rajahs endeavoured in the field, to which they

* Philostratus, lib. iii. cap. 11.

had been trained, to wrest from each other the provinces which their treachery had usurped.

The Indian nations seem to have continued in that happy and envied state, before described, from the foundation of their empire, under Rama, till within about 700 years of the Christian æra, when the first Tartar and Persian invasions commenced, and were at first vigorously resisted; but India and the uncounted treasures of its peaceable monarchs, accumulated during a series of centuries, afforded too strong a temptation to those valiant marauders to be relinquished after only one or two repulses; the attack was therefore renewed by both with numbers vastly increased and with tenfold vigour, and the Maha Rajah, if not wholly conquered, was subjected at least to tributary dependence: thus they continued to the time of Alexander's invasion. The great bond of union, by which so vast an empire had been holden together, was already broken; and, both in its eastern and western quarters, the inferior rajahs had usurped authority and privileges unknown to the principles and original constitution of the monarchy. The situation of things, however, at the period of the Greek irruption, fully verifies the preceding representation both of the affairs of India and the characters and

pretensions of the rajahs. It demonstrates that the great feudatory princes of India, though they retained their martial spirit and their usurped dominions, no longer obeyed the summons of the Marajah as their supreme chieftain to the embattled field; no longer elevated those united banners against the foreign invaders of their country which, in ancient periods, formed around his throne an impregnable bulwark. Their conduct to their chief was perfidious; and, that they no longer cherished that harmony, even among one another, which might render them formidable to the common foe, is evident from the motives which Strabo assigns for the junction of Taxiles, whose dominions spread for a great extent along both the shores of the Indus, with Alexander. The reason alledged for the ready assistance wich he afforded Hæphestion, in preparing the bridge of boats on which he passed that river, was the rooted enmity he bore to Porus, his rival, whose dominions lay on the east of the Hydaspes, and the noblest species of glory which that conqueror obtained in India was his uniting those rival chiefs in bonds of lasting friendship.

Of the nations at that period inhabiting the western region of India, and of the rajahs that governed them, we have just ground to entertain the most elevated and honourable notions,

since they fought with the most undaunted firmness against the veteran troops of Alexander,—against troops that were the flower of the armies of Greece, conversant, from long and severe experience, in all the various movements and all the intricate business of war, as well as furnished with every dreadful and effective engine for carrying it on with vigour and success. Yet, neither the terror of the new arms which assailed them, nor the intrepidity of a new enemy whom they opposed, could damp the ardour of their fortitude. In the desperate siege, the novel and terrific appearance of the immense battering machines prevented not the invested garrison from making the most spirited efforts against their invaders; and it was with hardly any remains of life that adventrous invader himself was borne on his shield from a principal city of the Oxydracæ, whose name, by concealing it, it would seem as if they were afraid of immortalizing. Every new river which he crossed, every new province which he attempted to subjugate, his hardy Indian adversaries still disputed, with a fortitude that shrunk from no danger, with an ardour which no fatigue could abate, and with a perseverance that must have been crowned with success against an enemy not deemed invincible. Again and again driven from the field, they still continued

to rally their dispersed forces; and although the Oxydracæ were defeated at Sangala, they renewed the engagement near the shore of the Indus. It may be urged that the veracity of the Greek historians stands upon a suspicious foundation, and that they who could degrade themselves so far as to compliment Alexander with the honours of divinity would not scruple at a falsehood to enhance his celebrity; but would naturally be led to magnify his enemies, with intent to increase the glory which victory, under such circumstances, must infallibly bring along with it. The Khettri, or war-tribes of India, however, have not less in modern than in ancient periods indubitably established their right to the distinguished character of heroic fortitude. The Mahrattas, one of those tribes in particular, may contest the palm of undaunted valour with the finest and best disciplined troops of Asia, and bid fair, at some future auspicious period, effectually to liberate their country from the galling yoke of their Mahommedan tyrants.

Having taken the above general survey of the duties and functions assigned to the first and second classes of the Hindoos, it would be unpardonable to omit mentioning the guardian, the paternal attention, extended by the ancient legislature of India to the two inferior

casts; who, while they contributed so materially by their industrious exertions as merchants, husbandmen, mechanics, and in the still humbler servile capacity, to the support, the comfort, and even the luxury, of the superior orders, had a right to expect, and fully enjoyed, the protection and fostering care of the government under which they toiled. It must here be noticed, that the sovereign of India has been immemorially considered as the sole proprietor of the soil;* and, under ancient grants from the crown, the great Zemindars hold their lands on the easy terms of paying a sixth part of the annual produce to that sovereign for his support and the subsistence of the national armies. Ancient writers say, that a fourth was the sum stipulated between the sovereign and the renter of the land; but I have elsewhere produced a passage to prove that it was only a sixth, which is a still more lenient deduction from his profits. It might be called a perpetual lease; for, the punctual payment of that sixth ever secured the possession of the farm to the family who rented it; and, in the ancient æras of the empire, it descended from father to son in the third cast by a kind of hereditary right.

* In the code of Hindoo Laws, the king is declared, "lord paramount of the soil," p. 194. Calcutta, quarto edit.

To so important a member of the community as the cultivator of the ground, in a country where the inhabitants subsist principally on vegetable productions, it was but consistent with the highest policy to render his situation comfortable and his property inviolably secure from invasion. This is done in a most ample manner, by a series of wise and humane laws, in the chapter of the code that concerns the third class; and which we shall presently more particularly notice. By those laws, he was for ever exempt from all the burthen of public service military and civil; he saw, but felt not, the tempest of battle which raged around him; hostile squadrons in the ardour of pursuit and victory respected the property and the person of the husbandman. In the ancient periods of the empire, Strabo tells us, it often occurred, that, while in one field the flames of war spread havoc and destruction, in that adjoining, the unmolested husbandman was beheld in security tilling the ground, and providing by his industry against its disastrous ravages.* There was, indeed, one apparent burden under which the husbandman laboured; but his devotion to the religion of his fathers forbade him to esteem it as such. The king had his *sixth* by law allotted to him; but *all*, if he were

* Strabonis Geograph. p. 704.

disposed to take it, was the Brahmin's. Among the fruits and grain of the earth he selected the choicest for his own use and the service of the temple. It was a sacred claim beyond the arbitration of man; and the infatuated devotee, instead of withholding the boon demanded, however great, exulted to be thought worthy of the partial favour of heaven in accepting it.

The merchant was equally protected in his property with the husbandman; a moderate tribute paid the government, for liberty to exercise his employ, secured him that protection. The artisan, the labourer, upon the same terms, shared similar advantages. Every name was enrolled according to his cast, his occupation, and his rank in that cast. A most rigid and vigilant police pervaded equally the city and the country. Innumerable officers were appointed in every district of the empire to collect those tributes, to inspect the state of the public roads, and those objects of high importance in a country occasionally subject to droughts from defective inundations, the *tanks*, or reservoirs; to mark out anew the boundaries of lands desolated by the ravages of the more violent and destructive ones; to superintend the public inns, or *choultries*, destined by this hospitable nation for the accommodation of pilgrims and strangers; to preserve, free from annoyance or

obstruction, the passages through forests and over the great rivers in a country where a vast internal commerce vigorously flourished; and, finally, to transmit to the fountain of government constant and faithful reports of whatever fell beneath their jurisdiction, in which the least fraud or prevarication was punished with death. The legislative code sanctioned and fortified the vigour of the police with all its authority, minutely pointing out to every class its peculiar duties, and alternately uttering, as the party seemed most likely to be affected by it, the soothing language of reward or the menaces of vengeance.

Thus the merchant is animated to liberality in dealing by the noblest precepts and incentives; the mechanic is deterred from injustice—the false weight and the deceitful balance, by the most dreadful denunciations of the vengeance of heaven against extortion; while the menial servant and labouring *cooley* are comforted with the cheering hopes that diligence in their respective stations will procure them favour in the sight of the all-seeing Brahma, and that their abject situation in this transitory world is only meant to prove their virtue and integrity amid the pressure of reproach and poverty. In truth, the situation of all the inferior classes is attempted to be made easy to them by perpetually impressing the

maxim that they are only doing penance in those humble stations for crimes committed in a former state of being; and, though the limits assigned their sphere of action in this stage of existence are irrevocably fixed, yet the path is open for persevering virtue and piety to gain the summit of perfection in another stage of it, — even to be born again in the lofty Brahmin cast and rule the race of monarchs, at whose nod they now tremble. The tribe of Chandalah, or *the outcast tribe*, awakens horrible ideas in the human mind; but, as I have nothing new to offer on the subject, I must refer the reader to what I have related in a former volume concerning that despised and miserable race.

In every retrospect on the ancient Hindoo government it will be observed, that, while its politic legislator held out to persevering virtue and patient obedience the most alluring rewards, it assumed the most inflexible aspect towards criminals of every description. To temporal punishments the most dreadful, and to corporeal mutilations the most sanguinary, in order to impress his mind with deeper reverential awe, were added all the terrors of the spiritual anathema, tormenting dæmons and the *gehenna of gnawing serpents;* for that is the true Hindoo hell, and demonstrates the intimate connection of its theological system with our own, of which

in its leading features, it is an evident perversion. What is not a little singular in this code, these present punishments and future terrors are often denounced against crimes comparatively trivial, with as much violence as against offences of the deepest enormity, as will hereafter be sufficiently manifest; in short, the stern dogmas inculcated by it, sanctioned by the combined authorities of heaven and earth, allowed of no relaxation in the severe discipline which it enjoined whether in moral or civil concerns. It was the awful manifesto of the deity; and, both in its sublimest and least important injunctions, the strictest obedience was alike indispensable. "PUNISHMENT," says the Hindoo code, "is the magistrate; punishment is the inspirer of terror; punishment is the nourisher of the subjects; punishment is the defender from calamity; punishment is the guardian of those that sleep; punishment, with a black aspect and a red eye, terrifies the guilty."* Consonant to this maxim, the laws of Draco himself were not more deeply engraved in blood than many of the precepts in this tremendous code. These sanguinary maxims it is impossible to ascribe to Menu: what was *remembered* from that legislator was, we may conclude, only *severely just*, but not cruel; we may rea-

* Halhed's Code of Gentoo Laws, cap. 21. sect. 8.

sonably refer to him all that is mild and humane in these Institutes, and some necessary precepts of a more rigorous nature; but, as his progeny degenerated, as the people gradually became more corrupt, the princes more despotic, and the Brahmins, more powerful, it was thought necessary to add new and more terrible laws to those which, in the primitive ages, were deemed sufficient to control the disturbers of the public tranquillity. The hypothesis on which this work and that of Mr. Bryant have constantly proceeded, and both of which record the invasion of India in early periods, and the conquest of the virtuous Shemites by the daring and nefarious Cuthite race, will sufficiently point out to the attentive reader the period of this great national change, and the fatal cause of this general depravity.

It should still be remembered, however, that many of the laws inculcated in the Brahmin code are in a high degree liberal and humane, founded on the practice and decisions of the earliest ages, when, as yet, no system of jurisprudence was committed to writing. Many also of the civil institutions, enumerated in it, go back to the days of Noah, though most have been dreadfully perverted; for, I must repeat in this place what has been frequently asserted in this work, and, indeed, forms in some degree the basis of it, that in the ancient world there

were certain grand and primitive customs diffused universally over all nations; customs founded on the general consent and original creed of mankind, confirmed by immemorial laws and sanctified by pious traditions; customs which probably flourished in their full vigour and purity, under the domestic patriarchal roof of Noah, before the dispersion, which passed into all nations with the first colonists, and were observed in their vigour and purity, or debased and degraded in every country, according to their rectitude in adhering to, or depravation in receding from, the institutions of their primæval ancestors. For the aspect of unrelenting severity assumed in general by legislative codes of very high antiquity, it may be urged as some degree of palliation, that the crimes, against the commission of which they were principally meant to guard, are not such as generally spring up among mankind in an associated and civilized state; but such dreadful offences as men scarcely emerged from barbarism, and under the influence of all the unbridled passions which agitate to tempest the human bosom, may be supposed capable of perpetrating: incest of the deepest dye, plunder and robbery, midnight murder, and the violation of virgin beauty. Against these crimes, so fatal to infant states, it was necessary to

raise the strongest rampart which the terror of regal authority could erect against them, and the extreme necessity of the occasion will too often justify their being *written in blood.*

In eastern climes, where despotism has ever reigned in its meridian terror, in order to impress the deeper awe and respect upon the crowd that daily thronged around the tribunal, the hall of justice was anciently surrounded with the ministers of vengeance, who generally inflicted, in the presence of the monarch, the sentence to which the culprit was doomed. The envenomed serpent that was to sting him to death, the enraged elephant that was to trample him beneath his feet, the dreadful instruments that were to rend open his bowels, to tear his lacerated eye from the socket, to impale alive, or saw the shuddering wretch in sunder, were constantly at hand to perform their destined office. The audience-chamber, with the same view, was decorated with the utmost cost and magnificence, and the East was rifled of its jewels to adorn it. Whatever little credit may in general be due to Philostratus, his description of the splendid palace and regal pomp of Musicanus too nearly resembles the accounts, given us by our own countrymen, of the magnificence which at present distinguishes those more powerful rajahs, who still retain a portion of

their ancient hereditary rights and domain, to admit of doubt, especially in those times when, as yet, the hoarded wealth of India had not been pillaged by the avarice of successive Mahommedan plunderers; the artificial vines of gold adorned with birds of various colours in jewellery, and thick set with precious stones, emeralds, and rubies, hanging in clusters, to resemble grapes in their different stages towards maturity; the silver censers constantly borne before him, as a god, in which continually burned the richest perfumes of the East; the robe of gold and purple with which he was invested; and the litter of gold, fringed with pearls, on which he was carried in a march or to the chase.* The Mahommedan sovereigns, doubtless in imitation of the splendour in which the ancient Indian monarchs lived, had also their vines of gold, thrones encrusted with diamonds, and ceilings plated with silver, as may be seen in the chapter of the Geographical Dissertation, that relates the magnificent decorations of the imperial palaces of Delhi and Agra in the times of the emperors Jehaun and Akber.

In short, whatever could warmly interest the feelings and strongly agitate the passions of men; whatever inflames hope or excites

* Philostratus, lib. iii. cap. 26. Curtius, lib. viii. cap. 9.

terror; all the engines of a most despotic superstition and of a most refined policy were set at work for the purpose of chaining down, to the prescribed duties of his cast, the mind of the bigotted Hindoo; to enforce undeviating obedience to the law, and secure inviolable respect for the magistrate. Hence his unaltered, his unalterable, attachment to the national code and the precepts of the Brahmin creed. As it has been in India from the beginning, so will it continue to the end of time and the dissolution of nature: for the daring culprit who tramples on either, heaven has no forgiveness, and earth no place of shelter or repose.

CHAPTER II.

The Age of the INSTITUTES *of* MENU, *as ascertained by astronomical Computation, reaches back so very near to the Flood, as to justify the Conclusion that they exhibit to us the shattered Remains of the grand* PATRIARCHAL CODE, *but debased, and perverted to political Purposes, by the Brahmins.—Mr. Halhed's* GENTOO CODE *and the* INSTITUTES *the only genuine Sources of European Information on the Subject of ancient Indian Jurisprudence.—In many Instances, both strongly resemble and illustrate the* LEVITICAL *Law.—Some of those Instances adduced, together with numerous Proofs of their being very sanguinary and partial Codes.—Mr. Halhed's being rather a Summary of adjudged Cases, than a complete Digest of Indian Law, is first considered.—A regular* ANALYSIS *is then attempted of the Work of* MENU *through its Twelve grand Divisions; interspersed with such Observations as suggested themselves to the Author in making it.*

Having taken the preceding general survey of this ancient and wonderful code of Indian jurisprudence, and of the spirit that breathes throughout it, I shall, in this chapter, after a few introductory observations, proceed to give a summary analysis of each of the twelve chapters it contains, and notice such other striking particulars in it as are more remarkably deserving of attention. In these prefatory observations, I shall have before me both the Institutes as presented to the public by Sir William Jones, and the Hindoo Code of Mr. Halhed, which was compiled by venerable Brahmins as an epitome of that and other ancient law-treatises now grown in some degree obsolete, or, at least, in less general use.

The Institutes are stated by the translator, in the elegant preface that introduced them to the European world, to be of a date far anterior to the laws of either Solon or Lycurgus; the first promulgation of them, as a code of laws, he is of opinion, was coæval with the establishment of the first monarchies in Egypt or Asia; and, by an ingenious astronomical calculation, strengthened by the internal evidence of the book itself, he endeavours to prove that the first reduction of them to writing, in their present form, was in the year 1280 before

Christ. A very long series of ages must, indeed, have elapsed before a body of laws so extensive, so complicated, so minute in its decisions upon almost every possible species of offence committed again the peace of society, and abounding with such excellent maxims for the wise government of a vast empire, could have been collected together, and the cases in civil, religious, and commercial concerns, which are enumerated in the course of it, have been determined. We are led gradually back by this statement and these reflections to the earliest post-diluvian centuries, and perceive, amidst a thousand interpolations of artful priests and interested legislators, certain, though faint, gleams of the patriarchal code that prevailed in the first ages.

A tradition very generally prevailed among the ancient Hebrews, that, after Noah had descended from the ark and offered to God that acceptable sacrifice which preceded the covenant the Almighty condescended to make with him, that he would never again inundate the globe, the great patriarch, at the same time, received certain general laws for the regulation of the conduct of the human race at large, till the more particular manifestation of his will from Sinai. These are, in number,

seven, and are denominated the *precepts of the Noachidæ.** By the first of these precepts, idolatry, or the adoration of false gods, is forbidden; by the second, blaspheming the name of the Creator; by the third, the shedding of human blood; by the fourth, incestuous and unlawful conjunctions are prohibited; by the fifth, the plunder of another's property; by the sixth, the eating of flesh cut off from the living animal; and, by the seventh, a solemn injunction is given for the institution of judges and magistrates to enforce obedience to the above laws. In these precepts, according to the Hebrew rabbins, are summed up the great principles of the Law of Nature; which, however, are more justly and concisely stated, in Justinian's celebrated code, to be included in the three following comprehensive maxims; that we should live honestly, molest nobody, and render to every man his due.

In truth, the best rule of human conduct, independent of revelation, is the *light of unabused reason*, which is very properly considered, by Grotius, as the great original Law of Nature, coæval with the creation of man, formed in *that* radiant image of his Sovereign Maker; a law, the peculiar growth of no clime, age,

* Selden de Jure Nat. et Gent. lib. i. cap. ult.

nor condition, but operating, with various energy, in every region, and among every people of the habitable globe.

This law, simple, perspicuous, sublime, continued, for a time, to be the ruling guide of man's conduct, till passion, gaining the ascendant, obscured the light of that glorious internal principle, and, precipitating Reason from her throne in the human bosom, usurped the sovereignty over his will and appetites. Still, however, though the light of reason became eclipsed, the Almighty Ruler had originally so formed man as not to leave himself entirely without a witness in the human mind. To the superintending and directing power of reason, he added another internal principle intended to limit the excess of vice and control the predominant fury of passion. It is that principle to which we all are so intimately conscious, which determines what is morally right or wrong in human action, and whose judgment is attended with consequent self-applause or condemnation. This solemn and secret monitor, occasionally lifting its awful voice, prevented that rapid immersion in guilt, into which his passions, entirely unrestrained, would otherwise have hurried deluded man, and his descent down the stages of vice was slow and gradual. In process of time, however, the criminal affections,

from repeated indulgence, becoming more headstrong and ungovernable, the admonitions both of the *thinking* and the *judging* power were alike disregarded, and human nature was degraded by the basest enormities. The scene then became totally and dreadfully altered. The ties of kindred, the strongest and most pleasing, were universally spurned; the sacred duties of hospitality were neglected; the sword determined all rights; and rapine and violence desolated the whole earth.

In the horrid and convulsed state above described was the ancient world, when it pleased the Deity, by a dreadful exertion of his power, to put a stop to the farther growth of iniquity, and to exemplify his justice in the destruction of it. To the father of the renovated world he doubtless vouchsafed, as has been hinted, a more peculiar manifestation of his will for the government of its new inhabitants, and probably some general precepts, like those ascribed to the Noachidæ, were imparted to him. These may in part have formed the basis of the ancient code under consideration, but the numberless puerilities, the endless train of superstitions, some afflictingly painful, and others disgusting in the extreme, the fanciful doctrine of transmigration interwoven with the very substance of it, the false philosophy

inculcated in it, and the extremely sanguinary punishments sometimes denounced in it, must be referred to the artful policy of the Brahmins, and to despotic princes who succeeded the first great legislator. The doctrines it contains are said to have been *orally* delivered by Brahma to Menu; a circumstance deserving consideration, as opening a wide and almost boundless field for fraudulent interpolation; at the same time its percepts are sanctioned by the most dreadful anathemas, and extend the horror of punishment to the most distant scenes of existence.

One of the most remarkable precepts in this code is that so congenial with the Levitical law, that a brother shall marry the *widow* of the *deceased brother*, and raise up seed to him; this law, however, is declared to be obsolete in this miserable Cali age. Institutes, p. 363. Another of its ordinances, which also affords a striking resemblance to the code of Moses, doubtless founded on the practice of the primitive ages, and ordained as a memorial of the great atonement, is the ceremony of the *scape-horse*, which is ordained to be celebrated in a public assembly of all the Hindoo tribes; and the horse, after many mystic rites, like the *scape-goat* of the Hebrews, and we may add the *red*

heifer of the Egyptians, * is driven with execration into the deserts, and supposed to be loaded with the sins of the exonerated nation.† There cannot be the least wonder at these and many other striking circumstances of similitude occurring in the two codes, entertained by those who have attentively perused the preceding volumes, and considered the plan upon which I have constantly endeavoured to explain these resembling traits in the ancient customs and codes of Asia. Indeed Mr. Halhed, in his preface, intimates that the very name of the country is derived from *Hind*, whom Eastern traditions make the son of Ham, and consequently the grandson of Noah.‡ But, whether he were or not, we are certain from their own records, and from the general worship of Rama prevailing at this day throughout their whole empire, that this grandson of Noah, this mighty chieftain, this conqueror of the degenerated race of rajahs, was the first regular universal monarch of India; and from the same source, it is natural that a code of laws, similar in its great outlines, should proceed. A great portion of the Mosaic code, indeed, was indubitably *inspired*; but, as indu-

* Herodotus, lib. ii. cap. 39.
† See Halhed's Gentoo Code, preface, p. 21.
‡ Ibid.

bitably, a considerable part of it was the result of primitive precepts and customs, which, from immemorial prescription, were already diffused and predominant in the East.

An *eye for an eye and a tooth for a tooth* appears to have been the rigid maxim of the ancient Hebrews: and it is here affirmed, that, with whatever limb an offence is committed, that limb shall the king amputate, for the prevention of similar crimes. Institutes, p. 232.

The trial by various kinds of water ordeal, which so repeatedly occurs throughout these codes, as the criterion of guilt and innocence, forcibly reminds us of the similar trial ordained, by the Deity himself, for the detection or acquittal of adultery by the *bitter water of jealousy*. Numbers, v. 30. The prescribed diet and strict attention enjoined in regard to animals clean and unclean, as well as the purifications of women and of men after contact with a deceased person or any object that imparts defilement, have also a very striking resemblance with those enjoined in the Levitical code. Those in particular that have relation to bodily impurity, from touching a dead body, are enumerated in almost similar words in the nineteenth of Numbers; a circumstance for which I have already endeavoured to account. Though slavery be

allowed, the crime of *men-stealing* is equally interdicted in the Hindoo and Levitical code. See Deuteronomy, chap. xxiv.

"In short, the whole office," says Mr. Halhed, "as well as the sacred pre-eminence of the Brahminical tribe, is almost an exact counterpart of that of the Levitical. The Levites were particularly forbidden wine; so are the Brahmins. The Levites were more than others enjoined to avoid the contact of all uncleanness; so are the Brahmins. The Levites were to assist the magistrate's judgment in difficult cases; so are the Brahmins. And, in every other respect, the resemblance might well authorize a suspicion, that they had originally some remote affinity to each other, though conjecture cannot possibly trace the source of the connection." In answer to this remark, I beg leave to express a hope that I have effectually traced that source, by a traditional channel, to a primæval patriarchal code.

But, subjoins our author, it is not only to the laws of Moses that this code bears a striking likeness; many other parts of the Holy Scriptures may hence be elucidated or confirmed. To mention only two instances: in the book of Genesis we find Laban excusing himself, for having substituted Leah in the place of Rachel to Jacob, in these words: *It must not*

be so done in our country, to give the youngest (daughter) before the first born: this happened long before Moses was born. Thus, in the Hindoo code, it is also made criminal for a man to give his younger daughter in marriage before the elder, or for a younger son to marry while his elder brother remains unmarried.

There is a peculiar law also in this code, by which a father is prevented from dispossessing his children of their property in favour of aliens, and by which he is compelled to give them, if they demand it during his lifetime, even though disobedient and rebellious, the distinct portion which falls to the lot of each: this is highly illustrative of the parable of the prodigal son.

In proof of the unrelenting severity of the Hindoo code, in PENAL CASES, I have put together the few following examples.

An adultress is condemned to be *devoured alive* by dogs in the public market-place. Institutes, p. 236. In the next sentence, the adulterer is doomed to be bound on an iron bed, *heated red-hot*, and there to be burned to death. Ibid. But, what is not a little remarkable, for the same crime, a Brahmin is only to be punished with *ignominious tonsure*. P. 237. He, who has committed *incest*, is doomed to be extended on a red-hot iron bed, or be made to embrace, till he die, the *red-hot iron image*

of a woman. P. 322. Of night-robbers it is ordained, that the hands be first lopped, and that they afterwards be fixed on a sharp stake, *i. e.* impaled. P. 281. The witness, who gives false evidence, shall be fast bound under water, in the snaky cords of Varuna, for a hundred years. P. 199. Naked and shorn, tormented with hunger and thirst, and *deprived of sight*, shall the same man go with a potsherd to beg food at the door of his enemy. P. 201.

For insulting a Brahmin with invectives, an iron style, ten fingers long, shall be *thrust red-hot down his mouth*: for offering only to instruct him in his profession, *boiling oil* shall be dropped into his mouth and ears. P. 224. For stealing kine, belonging to priests, the offender shall instantly lose *half of one foot*. P. 231. An assaulter of a Brahmin, with *intent* to kill, shall remain in hell for a *hundred* years: for actually striking him with the like intent, a *thousand*. As many small pellets of dust as the blood of a Brahmin collects on the ground, for so many thousand years must the shedder of that blood be tormented in hell. P. 336. But, though such frequent exemptions occur in respect to the Brahmins, descènded from heaven, a portion of the immortal gods, none are made in favour of KINGS; and we cannot but admire the rigid spirit of impartial justice that declares,

where a man of inferior birth shall be fined *one pana*, the king, who ought to be the fountain of honour and equity, for the same offence shall be fined a *thousand*. P. 232.

Having had occasion to refer above to Mr. Halhed's Code, which I before observed is rather an abridged than a complete statement of the general jurisprudence of India, compiled, from their most venerated books on the subject, by learned Brahmins assembled, by the invitation of Mr. Hastings, at Benares, in 1773; I shall, in this place, insert a few other remarkable precepts from that book, and close my observations upon it, that our subsequent attention to the institutes themselves, the grand original Code of Menu, may not be interrupted.

Several very sanguinary personal inflictions in penal cases occur there also; and, among other severe precepts, it is ordained that, if a man be guilty of gross fraud in trade, the magistrate shall crush his hand, nose, and teeth: if he repeat that fraud, the magistrate shall cut him into pieces with a *razor*. P. 245, quarto edition. Women, murdering their husbands or children, shall have their ears, nose, hands, and lips, cut off, and afterwards be exposed, if not pregnant, to be killed by cows: if they attempt to do it by poison, the punishment decreed is to have a large stone fastened round their neck,

and themselves thrown into the river. P. 306. Theft of goods is punished with, in the first instance, cutting off the hands; in the second, with crucifixion. P. 248. For stealing a woman, the criminal shall perish extended on a plate of red-hot iron. Ibid. For stealing an elephant, a horse, camel, or cow, one hand and one foot of the criminal shall be amputated. P. 249. Even the Brahmin that steals is, with great severity, punished corporally or banished, but never put to death; his hair may be cut off, his eyes torn out, and, what is rather a curious kind of punishment, resembling that anciently inflicted by Sesostris on cowards, his forehead is to be marked, by means of a red-hot iron, with the *pudendum muliebre*. P. 245. According to this code, adultery, in the male, is punished by total castration, and the offender, it is added, shall afterwards be led naked round the city, mounted on an ass. P. 271. Adulterers, whose crime admits of extenuation, as when deluded by the artifices of abandoned women, are branded in the forehead with the *pudendum muliebre*. Ibid. Unlawful games are punished with a fine and corporal punishment, at the will of the magistrate: fraudulence at play with the loss of two of the fingers. P. 289.

Destroyers of fruit-trees, or trees of sacred

use, and removing land-marks, are mulct with very high fines. P. 291. Of all domestic merchandize the king has a tenth for his tribute; of foreign merchandize a twentieth. P. 292. The inferior mechanic, labouring at his daily employ, shall suffer no deduction from his profit; and no tax shall be paid for articles used in the service of the temple. P. 293. In the article of diet, onions, garlic, and wine are absolutely forbidden on pain of banishment. P. 295. Persons who have no children, by applying to the magistrate, may adopt sons, and they inherit as legal children. P. 298. The owners of elephants, oxen, and other animals, are responsible for all mischiefs done by them, and subjected to high fines for their want of attention to them. By similar penalties, the wearied or hungry bullock must not be forced to labour, nor ever worked beyond his strength or out of due season. P. 299. Medicines administered to cows to prevent their calving, malicious attempts to blight trees and plants, or prevent their bearing fruit, are taxed with heavy fines. The father must not desert his son, nor the son his father; the brother his brother; nor the friend his friend; without solid proof of guilt: those who offend in these points, are menaced with fines. The blind, the lame, the deaf, the unfortunate of all descriptions, must be respected

in the public streets, and have the way left clear for them. The subject must give way to the magistrate, the pupil to the preceptor, and all to the Brahmin, under various penalties and fines. P. 302.

The Gentoo code, after enumerating an endless variety of local injunctions, principally respecting personal duties and purifications, provincial commerce, morals, obedience to superiors, and the regulation of domestic concerns, concludes with a sentence remarkable for the wise, but severe, spirit of equity that distinguishes it, allotting punishments and fines adapted to the degrees of knowledge and improvement supposed to be attained by each, and therefore rendering their offences proportionably heinous or mitigated. It is on the subject of theft, a subject which so constantly occurs, that we are unavoidably led to conjecture that the great mass of the Hindoos are less strictly honest in their dealings than they are, by some travellers, represented. If a Sooder, one of the lowest of the four classes, commits a robbery, he shall pay eight times as much as he stole; if a Bice, he shall pay sixteen times as much; if a Khettri, he shall pay a fine of thirty-two times as much; if he be a common Brahmin he shall pay sixty-four times as much; if he be a Brahmin of extensive knowledge, he

shall pay one hundred times as much; if he be a Brahmin of the highest class, he shall be fined one hundred and twenty times as much. Final page. If the same liberal cast of sentiment ran through every page, what a sublime and glorious system of jurisprudence would this code have presented to Europe?

THE LAWS OF MENU,

SON OF BRHAMA.

CHAP. I.

This initial chapter properly begins with an account of the creation of the world, and a general survey of the objects contained in it.

Menu is represented, in the first verse, as sitting reclined and wrapped in that divine absorption which, it has been often observed, is a leading tenet in the religion of India. The holy sages approach him with profound reverence; and, inquiring concerning the laws proper to be observed by the four orders, (a proof that the Indian empire was then formed, and this division of the nation then existing,) he unfolds to them the principles of all things and the manner and progress of creating them. It is here observable that water (not *light*, as

in the Mosaic narration) is first produced; produced, not by a *mandate*, but by a *thought*, of the Creator. In that water is placed a productive seed which becomes an egg of gold (the sphere) blazing with a thousand beams. By the same *thought*, he caused that egg to divide itself in two parts, and, from these two divisions, he framed the heaven above and the earth beneath.

The visible world being thus formed, the immaterial mind is produced, an emanation from the *Supreme Soul;* and consciousness, or rather conscience, the internal monitor. The creative spirit then proceeded to form the inferior deities and a number of genii exquisitely delicate. It is sublimely added, "He gave being to time, and the divisions of time; to the stars also and the planets." He then produced the four great tribes, or casts of India; the first from his *mouth*, the second from his *arm*, the third from his *thigh*, and the fourth from his *foot*. It is asserted that the Hindoos understand these expressions in a literal sense; but it is impossible for a dispassionate European reader to consider them in any other than an allegorical point of view. By the mouth, therefore, Menu must be understood to have meant *wisdom*; by the arms, *strength*; by the thigh, *commerce*; by the foot, *agricultural labour* and

obedience: and the principle inculcated, I conceive, is, that wisdom or piety, (for, both may be fairly shadowed out by the *mouth*, whence the dictates of the one and the prayers of the other proceed,) strength or fortitude, external commerce, and domestic industry, form the four pillars of a great empire. Hence the four-fold politic division of the Indian nation into casts and professional characters, intended eternally to inculcate, on legislators and princes, that important axiom.

Immediately after, succeeds a detailed account of created objects animal and vegetable, from the elephant to the gnat, from the lord of the forest to the creeper; and, what is singularly remarkable, all these are declared to have internal consciousness, all to be sensible of pleasure and pain, all in a state of transmigration in a world ever tending to decay.

The divisions of Hindoo time, divine and human, from the twinkling of an eye to the day of Brahma, or a thousand great ages, are next enumerated, and the four yugs are affirmed to be the allotted period of probation for the human race, or, rather, for countless races of human beings, "breaking like bubbles on the stream of life." Among these, the Brahmin, eldest-born of the gods, who loads their altars with incense, who feeds them with clarified

butter, and whose, in fact, is the wealth of the whole world, ever keeps his elevated rank. To maintain him in holy and voluptuous indolence, the Kattry, or rajah, exposes his life in the front of battle; the merchant covers the ocean with his ships; the toiling husbandman incessantly tills the burning soil of India. We cannot doubt, after this, which of the Indian casts compiled this volume from the *remembered Institutes* of Menu.

CHAP. II.

The second chapter is entirely devoted to the important concern of the education of the young Brahmin, and the consideration of the duties incumbent on the sacerdotal class, or first order.

Near the commencement it is declared that the great body of the ecclesiastical and civil laws of India is derived from two original sources, the SRUTI, or what was heard from above, meaning revelation; and the SMRITI, or what was remembered from the beginning, meaning immemorial usage. The man is declared anathematized who treats with contempt those two fountains of all genuine jurisprudence; for, in truth, were those dogmas to be

rejected, the Brahmin dominion over the consciences and fortunes of the Indians must inevitably fall to the ground. The consecrated land, or paradise of India, is next, with geographical precision, ascertained, and the SMRITI laws are declared to have been the immemorial usage of that favoured region, when man flourished in happiness and innocence.

The manner of educating the young Brahmin is now prescribed from his birth, and the minute attention paid, in every stage of that education, to cleanliness of person and vestment, evinces that the sacerdotal order of India, like those of ancient Egypt, consider the cultivation of *health* as no inconsiderable part of religion. They seem, also, to have laid it down as a maxim, that a pure soul cannot exist in an impure body, and that every new birth, in the fleshly tabernacle, conveys something more than a corporeal pollution. It is scarcely possible, consistently with decency, to detail their ideas on this delicate subject; yet must they not be passed over wholly unnoticed.

Thus, oblations to fire, that purifies all things, and holy rites on the birth of the child, expunge the seminal and uterine taints. Before the section of the navel-string, the infant Brahmin must be made to taste honey and clarified butter from a golden spoon. He must be named on

the tenth or twelfth day, at a lucky hour and under the influence of a benign star; a proof that they cultivated astrology at this early period in India. On the fourth month he is to be carried out to see and admire the SUN, the secondary god of his future devotion. In the second or third year, after his birth, the ceremony of tonsure must be performed; this was an old practice of the priests of Mithra, who, in their tonsures, imitated the solar disk. In the eighth year he is invested with the zennar, or sacred cord of three threads, in honour of the divine triad of India, Brahma, Veeshnu, and Seeva. He must afterwards put on a mantle formed of the hide of a black antelope; he must have a girdle, the zodiacal zone of the Mithriac priests, formed of *munja*, or *cusa*, grass; he must have a wand or staff of bilva or palass wood of such a height as to reach his hair, and the staff must be straight, smooth, and without fracture. Thus apparelled, and standing opposite to the sun, he must thrice walk round the fire from left to right, (a ceremony which fully proves the origin of the triple turn, *sun-ways*, of the Druids,) and then legally perform the ceremony of begging food of his relations. To explain this, I must observe that the Brahmin is always *supposed* to live by the charity of others, and to be a miserable mendicant in this transient world of sin and

sorrow. In another part of this chapter we are informed, that "the subsistence of a student by begging is held equal to fasting in religious merit." He must eat this eleemosynary food with his face to the east, and, having eaten it, he must thrice wash his mouth completely, and afterwards sprinkle, with water, his eyes, ears, and nostrils. Thus end the ceremonies indispensable to the infant Brahmin: let us attend him, in mature youth, to his studies and his preceptor.

He must observe the most rigid temperance, and, as he grows up, the most unsullied chastity, even in thought; or all his prayers, and all the instructions of his venerable tutor, will only inflame his guilt. He must attend his preceptor, arrayed in all the ensigns of his order; at the beginning of the lecture perform an ablution; read, or hear read, the Veda with hands devoutly closed; and, after the lecture, he must perform a second ablution, clasping, with both hands, the feet of the reverend father. He must, a thousand times in a day, if possible, pronounce to himself the mystic word OM (the fire of the solar orb). There is a wonderful potency in that word; it purifies, irradiates, and sublimes, the soul; it secures beatitude, and gains immortality. He must perform, for his tutor, the office of a servant without reward. By his hands the

consecrated wood, for the sacrificial fire, must be gathered; by his hand the flame kindled; he must carry the water-pots for ablution, the flowers, fresh earth, and cusa-grass, used in the sacred ritual; and, at intervals, intensely read the holy Veda, and implore food around all the district.

Nothing can be conceived more severe than this state of servile pupillage, which continues to the twenty-fifth year; it shews the abject obedience in which the elder Brahmins hold not only the younger of their own order, but all the orders dependent upon them. Many of the stanzas, in this chapter, contain very excellent moral doctrines, though much overstrained. By others we are filled with sentiments of detestation and horror at the sanguinary interdictions contained in them, for the most trivial faults and the most pardonable sallies of youth. At the close of this long vassalage, the Brammassari, when he leaves his preceptor to return to his natural father, is subject to a mulct, and must gratify the avarice of the holy Indifferent with the best gifts in his power, a piece of land, a present of gold, a jewel, a cow, a horse, or some similar present. The ultimate reward, however, for this patient servitude and voluntary munificence, is not a little flattering; for the last stanza declares, that " the twice-born

man, who shall thus, without intermission, have passed the time of his studentship, shall ascend after death to the most exalted of regions, and no more again spring to birth in this lower world."

CHAP. III.

In the third chapter are discussed the TIME and DUTIES of marriage.

Having passed through the state of pupillage, according to the rigid rules laid down in the preceding chapter; having obtained his tutor's consent, and received from him a present of the Vedas, the young Brahmin is permitted to espouse a wife of his own tribe, but not within the *sixth degree* of consanguinity. Some very judicious, and other very curious, rules are laid down for his conduct in the choice of a wife; in particular, he is recommended not to marry any woman with red hair, deformed in her limbs, or immoderately talkative, nor into any family that has produced no male children, or that is subject to any hereditary complaint, as phthisis, epilepsy, and elephantiasis. Let him, say the wise Institutes, choose for his wife a girl whose form has no defect, who has an agreeable name, who walks gracefully, like

a phenicopteros, or like a young elephant, whose hair and teeth are equally beautiful, and whose body has exquisite softness. A marriage, in any tribe below his own, degrades him, but still it may be contracted; he may legally espouse four wives according to the number of those tribes. There are eight forms of marriage, four are holy and four are impure. They are enumerated, and the latter are to be avoided, because it is declared that a guilty marriage invariably produces a miserable offspring. If a Brahmin marry a girl of the Kattry tribe, she must approach the nuptial fire bearing an arrow in her hand; if one of the Bice tribe, a whip; if one of the Sudra tribe, she must hold the skirt of a mantle; I presume as a mark of her being of the lowest class. The instructions of this pious book are so very minute as to descend to a description of the proper periods, that is, the auspicious nights, for conjugal embraces; and many other circumstances which it would be neither useful nor decent to insert in this epitome.

The Brahmin must be constant, affectionate, and indulge his wife in all the innocent diversions and all the personal ornaments suitable to his rank and abilities; and the perfection of nuptial felicity is thus summarily described and forcibly recommended. "In whatever family

the husband is contented with his wife, and the wife with her husband, in that house will fortune be assuredly permanent." Being now become a housekeeper, maxims, appropriate to his new station, are inculcated; the successive sacrifices and ablutions to all the gods and genii respectively; "by day, to the spirits who walk in the light; and by night to those who walk in darkness." The numerous and varied duties of hospitality, to different guests, according to their rank and consequence, are now laid down and strenuously recommended. They impress the mind with the liveliest idea of the generous liberality of the benevolent race of ancient Indians. This chapter concludes with a very ample and curious detail of the ceremonies customary at that particular sacrifice which the Indians denominate SRADDA, or oblation to the manes of their departed ancestors, who are represented as exulting in delicious repasts of rice, honey, and clarified butter, offered up to them by their grateful descendants; and as blessing the pious donors through a thousand generations.

CHAP. IV.

On Economics and private Morals.

The art of prudently managing domestic concerns, and the legal and honourable methods by which a Brahmin may increase a scanty income, are here discussed: his chief business is about the altar, he must constantly attach himself to some consecrated fire, he must duly and devoutly perform the offices of religion, and be particularly attentive to those rites which are performed at the end of *the dark and bright fortnight, and at the solstices;* another proof how early they knew the solstice, and had brought astronomy into the aid of religion. In his person he must, like the priests of Egypt, preserve a scrupulous cleanliness; his hair, nails, and beard must be clipped; his passions subdued, his mantle white, his body pure; carrying in his hand a staff, or wand, an ewer of water, a handful of *cusa*-grass, or copy of the *Veda,* with golden rings in his ears. The same rigid attention to cleanliness must be kept up in the minutest article of life and conduct; in his conjugal commerce, in the necessary evacuations, &c. (all described in very disgusting detail,) a more than Mahommedan

severity must be observed. His manners must always partake of the gravity of his profession; he must neither dance, nor sing, nor play on musical instruments, except in religious rites; he must neither play at dice nor associate with any who do, or gain their livelihood by dishonourable and low means: the company even of a king, not a rajah by birth, is an eternal disgrace to the high-born Brahmin.

Having risen with the twilight, having performed his ablutions, repeated the Gayatri, and lighted the sacred fire, he must intensely, throughout the day, study the *Vedas*, and regulate his conduct by its sacred rules. Let him delight in truth, in justice, in benevolence; let him not give way to either arrogance or pusillanimity; neither be the votary of pleasure, nor the slave of gloom and despair. Let him walk in the path of good men, the path in which his forefathers delighted to walk. Let him honour his parents, respect his guest, be tender to his offspring, gentle to his servants. Let him avoid covetousness, and not be greedy of presents, of which the Brahmins receive many. Let him be scrupulously delicate in regard to what food he eats, and with whom he eats it: the most dreadful violation of his character is inseparable from eating with one of an inferior cast. Towards the conclusion of this chapter

there occur some very sublime passages concerning the soul, and the radiant rewards that will, in a future state, be the consequence of a life thus passed in unsullied piety; and the final verse is as follows: "a priest who lives always by these rules, and who is freed from the bondage of sin, shall be absorbed in the divine essence."

CHAP. V.

On Diet, Purification, and Women.

The precepts inculcated in this chapter are almost entirely of a local nature, and an enumeration of them, even in the most abridged way, would be little interesting or instructive to an European. Under the first article, the banquet of blood, the food of animals, is positively forbidden, except of those offered in sacrifice; for it is expressly declared that "as many hairs as grow on the beast, so many similar *deaths* shall the slayer of that beast, for his own satisfaction in this world, endure in the next from birth to birth." Under the second head are discussed the necessary purifications appointed for those who have been defiled by the touch of a dead body, for those who have had illicit concern with women; for

women themselves, after the puerperal and menstrual taint; for accidental contact with a *Chandalah*, or outcast: many of these are appointed to be by the *fire*, but far more by the *water*, ordeal, and the duration generally from three to ten days. The third article exhibits to us a striking proof in how contemptible a light the amiable part of our species is holden by the fastidious, frozen, self-admiring Brahmin, who would bind the loveliest beauty in eternal chains, and subject the most tender affection to neglect and cruel dependance. By the Indian, in this respect abominable and unsocial, code, a woman through every stage of life must be kept in perfect vassalage; in childhood, to her father; in youth, to her husband; at his decease, to her sons and his kinsmen. The stern dogma decides that " a woman must never seek *independence*." Other circumstances, equally degrading to the sex, are added, *by the Brahmins*, we must suppose; for precepts like these can never have formed a part of the patriarchal code, since the Hebrew patriarchs well interpreted that passage in Genesis relating to the creation of woman, that by her being taken out of the *side* of Adam, and not from any superior or inferior part of his body, was denoted her *equality* with her husband.

CHAP. VI.

The sixth chapter is entirely on DEVOTION, and discusses the duties incumbent on the third and fourth orders or degrees of Brahmin candidates for final beatitude.

As we have already, in the fifth volume of this work, rather extensively detailed the history of the four ASHERAM, or degrees of Brahmin probation in this transitory world, under the distinct titles BRAHMASSARI, GERISHTH, BANPERISTH, and SANIASSI, and, as this chapter is only a confirmation of the actual existence of the painful trials described in it, little more remains for us than to mark out such striking particulars as could not then be noticed from the want of this authentic document. We have traced the young Brahmin through his years of pupillage, and have seen him pious, content, and happy in the conjugal state. Severer precepts impend over his more advanced life. When his muscles become flaccid and his hair gray, and when he beholds the "child of his child," he must check the farther ebullition of passion, and seek the seclusion of the forest. His wealth, his idols, his household utensils, he must resign to his children: clothed only in the hide of an antelope, or a vesture of woven

bark, he must retire to his hermitage in the high embowering woods, and his food must be confined to bare roots and water. He must fast more rigidly than ever; he must undeviatingly perform all the appointed sacrifices to the gods of India superior and inferior, to the constellations, and the manes of his ancestors; and greatly multiply them at the awful period of the conjunction and apposition of the moon, and at the winter and summer solstices. He must alternately expose himself to the piercing extremes of intense cold and raging heat, or, to use the dreadful words of the Institutes themselves, "let him, in the *hot* season, sit exposed to five fires, four blazing around him with the sun above: in the *rains*, let him stand uncovered, without even a mantle, where the clouds pour down the heaviest showers: in the cold season, let him wear humid vesture; and increase, by decrees rising above each other in harshness, the austerity of his devotion, till he perfectly dries up his bodily frame." In this short sentence what a catalogue of varied and increasing sufferings; what an inventive genius for torture have these world-renouncing Brahmins! But, farther, if he possess any incurable disease, let him neither aim at palliation or cure; let him bear in silence the most exquisite pains, and bless the gangrene

that, like the unsatiated vulture, preys upon his vitals. If, by these and other excruciating modes, he cannot "shuffle off" the incarcerating body, let him seek eternal glory in this world and the next by finally becoming a SANIÀSSI.

Bearing in one hand a water-pot, in the other a staff, his eye continually fixed on the earth, his lips closed in inviolable silence, the human organs totally subdued, and utterly insensible to whatever passes around him, he must be totally absorbed in profound reflection on the holy *Vedas*, on the transporting joys that animate the just in heaven, on the ineffable torments that await the disobedient in hell. If any pious compassionating Brahmin bring him such homely food as a Saniassi is allowed, in the shade and obscurity of the night he may eat it; or if he fill his pot with the water of the pure rivulet, in the same nocturnal season he may drink it; but he must himself make no exertion, nor feel any solicitude for existence upon this contaminated orb. Happily, for these infatuated devotees, there are always enough of the younger students of the holy tribe to attend them in their retirement; who think that, by ministering to their necessities, they catch a part of their sanctity, and are entitled to a portion of their sublime rewards; for, by long

long continuing these excruciating severities, many of the former are by degrees plunged into a state of stupid insensibility, and become perfect ideots; and the faculties of all are impaired almost to derangement. The corporeal organs, grown callous to every external impression, are divested of all their functions, and the Saniassi appears, to weak-sighted mortals, as an immoveable statue of wood or stone; but the entranced soul is in the highest heaven with the Eternal Mind from which it emaned, and waits only for the total destruction of its unworthy comrade to obtain complete and unbounded absorption in the Deity.

Near the conclusion of this chapter occurs the following whimsical, but striking, description of the *house of clay* tenanted by frail mortals.

"A mansion with *bones* for its rafters and beams; with *nerves* and *tendons* for cords; with *muscles* and *blood* for mortar; with *skin* for its outward covering; filled with no perfume, but loaded with *fæces* and u—e.

"A mansion infested by age and by sorrow, the seat of malady, harassed with pains, haunted with the quality of darkness, and incapable of standing long; such a mansion of the vital soul let its occupier always cheerfully quit."

Apparently replete with magnanimity and

fortitude as are many of the precepts contained in this chapter, yet it is to be feared they have their foundation in the arrogant conceits of the Brahmins, that lead them to look down with contempt on the works of God and the fellow-creatures with whom they sojourn in this terrestrial sphere, a kind of blind and desperate enthusiasm, rather than a true religious fortitude of mind. Indeed, if there existed no other objection to their celebrated doctrine of the Metempsychosis, it is a sufficient one that its dogmas have a constant tendency to recommend the most determined *suicide*, and to wrest from the hands of the Almighty that supreme power, which he alone by right possesses, of disposing of the lives of the creatures which he has made.

CHAP. VII.

This chapter relates to the mode of rightly administering the government, and the duties of the military, or rajah, class, who are by law appointed to that office.

In the six preceding chapters the duties, functions, and privileges of the Brahmins, or first class, have been very amply discussed; the duties of kings, who form the second, are now

to be unfolded. Kings, were created, say the Institutes, by the Ruler of the universe, to maintain order and enforce law: without a king the world would quake on all sides through fear from the prevalence of crimes: the Brahmin code, therefore, decidedly supports the doctrine of the divine origin of kings. The kingly character is spoken of in the most adulatory terms. A king is represented as the sun that illumines the world; the perfect essence of majesty, by whose favour Abundance rises on her lotos, in whose valour dwells Conquest, in whose anger Death. It is then sublimely added, that, for his use, "Brahma formed, in the beginning of time, the genius of punishment, with a body of pure light, even abstract criminal justice, the protector of all created beings." It is declared that a king, as he is the source of justice, must himself be a bright and exemplary pattern of every virtue. He must rise at early dawn, he must diligently and humbly attend to the lectures of the Brahmins, the hereditary counsellors of the throne, in all the sciences connected with his high office; he must keep his organs in complete subjection, for a king devoted to pleasure is devoted to ruin; he must be neither addicted to gaming, nor intoxication, nor effeminate relaxations, as music, dancing, or singing; the insidious tale-bearer, the mali-

cious detractor, he must avoid as death. He must see with his own eyes, he must hear with his own ears, weigh all matters dispassionately, and inviolably regulate all his decisions by the rules laid down in the Vedas. He must select seven or eight ministers, of noble descent, brave, and skilled in the science of jurisprudence. With these he must daily discuss the important business of peace, of war, and alliance with foreign states, of his forces, of his revenues; with these he must consult on the appointment of proper subordinate officers, civil and military, throughout his whole kingdom; and, with respect to other princes, he must ever be particularly circumspect whom he sends as his ambassador; the august representative, the sacred image, of himself! He must erect a lofty fortress, amidst inaccessible mountains, to which he may retire in case of necessity, and in time of war; around it, for many leagues, must stretch either a vast desert or impenetrable forests. In time of peace he must reside in his capital and among his subjects, whom he must treat as the children of his affection. Remembering his high birth and function, never to recede in battle, to protect the people, and honour the priests, is the summary character here given of a good king. In the subsequent pages the duty and conduct of the inferior rajah and

the common soldier are displayed in terms that evince a consummate knowledge of the art of war as anciently carried on in India. The rajah, it is declared, must be of a liberal and elevated mind, of morals uncorrupted, in combat invincible. With respect to the treatment of a vanquished or a captured enemy, and the division of the spoil, there are many precepts highly honourable and generous.

From his duty in the field, the Indian sovereign is again traced back to his tribunal, and the arrangement of the domestic affairs of the empire. When not engaged in taking the exercise necessary to health, or at his meals, or in moderate enjoyment of the pleasures of the Haram, he must still be found on that tribunal, hearing causes and redressing grievances from dawn to the close of day. Seated conspicuously in the hall of justice, he must make no invidious distinctions; the addresses of the meanest of his subjects must be equally attended to with those of the highest. On one side fiercely blazes the sword of justice; on the other mildly gleam the symbols of benignity and mercy. Then follows a series of rules for regulating the commerce of his immense dominions, the stipulated sums to be paid the sovereign, for security and protection, by every class of traders, are minutely laid down, and the regulations

must be allowed to be, in every respect, both wise and equitable,

CHAP. VIII.

This long chapter discusses farther the important duties of the kingly office; and enters into various details concerning the private and criminal law of India.

As, in regulating the general concerns of the empire, he is to be assisted by a council of seven or eight ministers of the rajah tribe, so while he presides in the courts of judicature and is determining legal appeals, his judgement, in difficult cases, is to be directed by some aged Brahmin of great experience and erudition in that branch of science, assisted by three others, forming a select assembly, which is in consequence, called by the revered name of Brahma; *the court of Brahma with four-faces*. It is remarkable that, towards the commencement, Justice is allegorically represented as Vrisha, or *a bull*, and he who violates Justice as Vrishata, or the *slayer of the bull*; which, as these Institutes are said to be the oldest promulgation of law in the world, next to the Mosaic, may have given the idea of the symbolical bull to *Minos*, the Cretan legislator and supposed son of Jove; and possi-

bly, as Sir William Jones intimates, from *Menu*, son of Brahma, may be derived the very name of that famous lawgiver. At least it must be considered as a very singular circumstance of similitude that of the Indian Dhermaraja, or *king of justice*, the symbol should also be a *white bull*; nor, in this retrospective view of the mythology of ancient kingdoms will the resembling name of the Egyptian legislator Mnevis, and his companion *Apis*, be wholly forgotten. The decisions that now follow are vastly numerous and varied, and, if minutely detailed, would be very uninteresting to the greater part of my readers, because they have, in general an immediate allusion to the local customs, and the peculiar manners, and superstitious prejudices, of India. The legal student, and persons resident in India, will probably not rest content with any analysis, much less with the subsequent one, of necessity very summary, but consult the book itself, which, by its republication in Europe, is now made sufficiently public.

The laws concerning debtor and creditor are first distinctly laid down, and the rate of interest, upon different kinds of property pledged, specified; that interest is always to be in proportion to the hazard run, and to increase or

decrease, according to the high or inferior class of the person borrowing. *One and a quarter* in the hundred per month, was the interest allowed by Vasishta, and is the standard regulation; but, in some very perilous cases, even *five in the hundred*, per month, is permitted. The common average interest of money at Rome, in its meridian glory, was *twelve* per cent. per annum, which does not very widely differ from the Indian.

In the next place, the characters of witnesses, proper to be admitted to give evidence, come under examination: that evidence must be solemnly given before some sacred image, a symbol of the Divinity, whose presence in that image is supposed to strike into his soul a holy awe: the most dreadful denunciations are throughout uttered against those whose evidence is not founded in truth. The priest is permitted to swear by his sacred character alone; the soldier by his horse, his elephant, or his arms; the merchant by his gold or other articles of traffic; one of the servile, or fourth class, by imprecating on his head, if he speak falsely, all possible crimes and their punishment. On great occasions criminals are to be tried by fire and by water; and of him whom that fire burns not, or who sinks not in that water, the veracity must be

considered as perfect. A variety of very severe ordinances in the criminal jurisprudence of India has been already noticed; and some, still more sanguinary, may be found in the course of this chapter. In a country where agriculture and the preservation of kine are an important concern, the most rigid laws concerning trespasses, the removal of land-marks, and the maiming of cattle, are indispensable, and they are here very strictly and copiously laid down. The various species of *defamation* and personal *assault* are then respectively considered; the first is punished by slitting the tongue, the latter according to the degree of injury received, but generally by maiming or amputating the limb that gave the offence, besides the payment of all expences attending the cure of the mutilated person. *Theft* is the next subject considered. The king himself is first cautioned, by dreadful menaces, not to set the example by plundering his subjects. The punishments principally ordained, in this case, are imprisonment, confinement in fetters, corporal punishment, and heavy fines at the discretion of the judge. For stealing men and women, however, the punishment is death. Death also with horrible tortures awaits the foul *adulterer*. In addition to the enormous inherent turpitude of the crime, a political reason

is here alleged for the severity of the Indian code against this offence; it breaks down the eternal bulwark of the laws of Brahma, and causes a *mixture of the classes of men*. In this respect, resembling our own sacred Scriptures, it extends the guilt of adultery to mental inclination, to presents, and to licentious conversation with the wife of another.

The freight of goods, and the exact prices to be paid as toll at ferries and in the guarded passages of mountains, together with the due regulations for weights and measures, next occupy the attention of the Indian legislator; a vigorous commerce is recommended to be kept up, by the ruling sovereign, as the firm basis of national wealth and greatness: the horrid traffic in human flesh is sanctioned, and the everlasting servitude of the Sudra tribe is rivetted upon that unfortunate cast by the laws of destiny, since the Sudra was born a slave, and when even emancipated by his indulgent master, a slave he must still continue: "*for, of a state which is natural to him, by whom can he be divested?*" Thus inconsistent, thus incongruous, is the Hindoo code, which, while it anathematizes thieves, permits the magistrate to share in the plunder, and dooms a considerable portion of the human race to insurmountable slavery,

at the very moment that it strenuously inculcates the sublime dogma of the IMMORTALITY OF MAN.

CHAP. IX.

This chapter is a continuation of the subject of the former; and so important to the general welfare of the state does the Indian legislature consider connubial felicity, that it has provided a particular series of laws for settling the disputes that may arise, in domestic life, between man and wife. Its impartiality, however, is deeply violated by the illiberal reflections again thrown, in the initial paragraphs, on the fairer part of the creation. They are declared utterly unfit to enjoy independence; they must be kept through life under the severest restrictions; and have nothing to do with the text of the Vedas, as if they were an inferior order of beings, and not accountable hereafter for their conduct. It must be owned, however, and lamented, that these degrading sentiments, in regard to the sex, are not peculiar to Hindostan; but have ever been too common over all the despotic kingdoms of the East, where women have immemorially been subjected to the most menial domestic

offices, and hardships ill suited to the tenderness of the female constitution. The disgusting nature of the subject, added to the indelicacy of many of the precepts here given, induces me rather to refer the reader to the book itself than to dilate upon them. The following energetic sentence, however, can by no means be omitted: "the man, who preserves his wife from *vice*, preserves his offspring from the suspicion of *bastardy*, his ancient usages from *neglect*, his family from *disgrace*, himself from *anguish*, and his duty from *violation.*" In this chapter occurs the permission, previously noticed as so congenial with the Levitical law, Deut. xxv. 5, for the brother to ascend the bed of the deceased brother, if the widow *have no issue*, for the purpose of producing such issue. It is to be observed that the permission, in the Hindoo code, is limited to the production of *one son only*; ever after both the brother and the widow, who have thus united, must live together like father and daughter by affinity. This law ceased among the Jews at the period of the Babylonish captivity; and, in the Cali age, is forbidden in Hindostan.

To the laws respecting legal union and issue are properly subjoined those concerning *inheritance*. In these laws, and in a variety of instances, throughout the volume, may clearly be traced

the remote origin of those which, in Europe, we call *feudal*. The elder brother is stated to be in the place of both father and mother to his younger brethren, and they are to look to him as to a parent: in this venerated situation there can be no wonder at his being appointed to succeed to the greater part of the father's fortune, and to all his best goods and chattels; the remainder is divided, in proportion to seniority, among the other sons. The widow must be supported by the benevolence of her eldest son. To the daughters, unmarried at the decease of their father, each brother shall give, by way of portion, a fourth part of his own distinct allotment. Eunuchs, persons expelled from their casts, ideots, and those born blind, deaf, or dumb, the impotent, and incurably diseased, are declared incapable of inheriting; but the heir, under severe denunciations of spiritual vengeance, is bound to supply them through life with food and raiment to the best of his abilities. Under this head of inheritance will be found some very nice and wise distinctions, worthy the minute attention of the legal student, but into the discussion of which it cannot be expected that I should enter.

The laws against *gaming* engross another grand division of the Hindoo penal code, and the penalties are extremely severe, whether it

be performed with dice, or with living creatures, that is, by matches betwen *rams* and *cocks*, to which the Indian nation have ever been greatly addicted. A prevailing spirit of gaming is truly stated to be the forerunner of destruction to princes, and the subversion of the empire. The sovereign must labour to suppress it, therefore, by every possible means, and punish the professed gamester and keeper of a gaming-house as open thieves. High fines and corporal severities, according to the elevated or inferior class of the offender, are the allotted punishments. To the above enumeration of crimes succeeds, in regular order, the detail of a great variety of offences and laws that could not well be classed under any of the preceding general heads.

Iniquitous and ambitious ministers, who, inflamed by the blaze of wealth, prostitute their high stations to the purposes of gain, are to be stripped of their property. The forger of royal edicts is to be put to death. The incestuous violator of the *paternal bed;* soldiers who intoxicate themselves with arrack, mead, or rum; the sacrilegious stealer of the gold of Bahmins; are ranked among criminals of the highest degree, and punished accordingly. The person who is guilty of cheating in the public bazar, and he who robs in the secluded forest, receivers

of bribes, extorters of money by threats, debasers of metals, fortune-tellers, professors of palmistry, and a long train of petty offenders, whose crimes often evade the vigilance of the public functionary, are to be hunted out by means of spies and emissaries *once thieves themselves, but reformed*, who, by caresses, presents, and other gratifications, having made their way, into their hearts and affections, are to turn public informers, and become the means of dragging them from their haunts to the tribunal of national justice. Those who stand by, neutral and inactive, when they are witnesses to attacks by robbers, or who supply them with sustenance, are to be considered as equally guilty, and share their punishment. The destroyer of a dam, the violator of a pool or well, the obstructor of a water-course, the breaker of a foot-bridge, of a public pavement, or palisade, shall all be respectively and highly mulct. The prisons and places of correction are ordained to be placed as near as possible to the public road, that all men may mark the punishment of guilt, and profit by the groans of the suffering. Then follows a farther recapitulation of the character and duties of a great and good king, and the innumerable blessings that await an empire thus wisely governed. The chapter concludes with laying down a variety

of general precepts for the regulation of the two last classes, the *commercial* and the *servile*.

Of these the VAISYA (or Bice) is the superior; his proper business is agriculture, commerce, and keeping of cattle. While to them the Lord of all created beings intrusted the herds and flocks that range the mountains and the valleys; to the Brahmin and the Khettri he gave in charge the whole human race. With the value of all the precious gems and pearls with which India abounds, with the produce also of all foreign regions, with the correct modes of measuring and weighing, with the excellence or defects of all vendible commodities, and the means of breeding cattle with large augmentation, the Vaisya ought to be intimately acquainted, for they are the occupations allotted him by the irrevocable voice of destiny. He must also be conversant in various dialects, must erect warehouses, safe and substantial, for the different articles of commerce; he must be incessantly vigilant, and may even indulge a solicitude for wealth, so far as that solicitude does not stint his benevolence to sentient creatures. In respect to the SUDRA, he must be content to *serve*; that is his unalterable doom. To serve in the family of a Brahmin is the highest glory of a Sudra, and leads him to certain beatitude. He must, in that humble capacity, in a parti-

cular manner, study purity both of body and mind; be mild in speech, and patient of labour; this will secure him a more eminent class in another transmigration.

CHAP. X.

On the mixed Classes, and on Men's Duty in Times of public Distress.

The tenth chapter of the code is neither very long nor very important; the first part has reference to the genealogy of the tribes, and the purity of their blood. In proportion as they marry in the tribes below them, (for a Brahmin may have a wife from each tribe,) the sons bear the stamp of degradation: if he takes one from the Khettri tribe, he is degraded in the first degree; if from the Vaisya, in the second; and so on. An endless enumeration of instances of this kind follows through all the various classes; their duties are stated and their occupations fixed, since, in fact, those born of mixed blood belong to no original class, and consequently can have no appointed profession. A picturesque description of the miseries of the CHANDALAH, or outcast tribe, succeeds, I presume, *in terrorem* to the others. It is

ordained that they exist remote from their fellow-creatures amidst the filth and dirt of the suburbs; their sole wealth must consist in dogs and asses; their clothes must be the polluted mantles of the deceased; their dishes for food broken pots; their ornaments, rusty iron; their food must be given them in potsherds at a distance, that the giver may not be defiled by the shade of their outcast bodies; their business is to carry out the corpses of those who die without kindred; they are the public executioners; and the whole that they can be heir to are the clothes and other wretched property of the slain malefactor. A great many other particulars of this exiled tribe are added by other authors, which I have elsewhere enumerated: and they form, themselves, no weak proof of the unrelenting spirit of the Hindoo code, that could thus doom a vast class of people, a fifth of the nation, to unpitied, perhaps unmerited, wretchedness. An Indian, in his bigotted attachment to the Metempsychosis, would fly to save the life of a noxious reptile; but, were a Chandalah falling down a precipice, he would not extend his hand to save him from perdition.

The second portion of this chapter discusses the question how, in times of great adversity or distress, the individuals of the four tribes, unable to subsist on their usual occupation, are

to obtain a maintenance. A Brahmin, it is determined, unable to live by the duties of his profession, may even take up arms and become a soldier; or he may enter into commerce, and subsist as a mercantile man; or finally, if absolutely necessary, by tillage, and attending cattle. A great many more restrictions, however, are laid upon the Brahmin, thus occupied, on account of his purer character, than on the soldier, the merchant, and herdsman, engaged in their native employ; many articles used in war and commerce being absolutely forbidden *him* even to touch, which are familiar to *them*. A Khettri, or military man, in distress, may subsist by all these means in the descending scale; but he must never aspire to the honours of the sacerdotal function. The mercantile man and the Sudra may, in the same manner, deviate from their own immediate line of life; but nothing of this kind is to be done without urgent and indispensable necessity, since it immediately breaks in upon the sublime laws of Brahma, instituted at the beginning of time, and violates the eternal order of the Indian casts.

CHAP. XI.

On Penance and Expiation.

A considerable portion of the rules and precepts laid down in this chapter is mere repetition of those inculcated in the sixth chapter, or that on DEVOTION: some are very severe, and others even ludicrous. What is *new* on the subject need only be noticed amidst the terrible display which it exhibits of expiatory tortures. These expiations, however, are not always by corporeal punishment; they may be compounded for by high fines paid to the gods, and their vicegerents the *Brahmins*. The slayer of a Brahmin undesignedly, if he be of the military tribe, must expose himself to be shot to death by archers, or cast himself headlong thrice into a blazing fire. He, who has intentionally drunk inebriating liquor, may expiate his crime by swallowing spirit on flame, or by severely burning his body. For stealing from a Brahmin, he must carry to the king, on his shoulder, an *iron mace*, with which the sovereign must strike him, and, whether he die or not by the blow, the crime is expiated. He, who has accidentally killed a cow, must array himself in her hide, and, thus invested, must, for three

months, incessantly attend the herd to which she belongs, and guard them from tigers by night and by day. For killing snakes and other animals, offerings are to be made to the Brahmins, proportioned to the purity and value of the animals slain. An immense catalogue of smaller offences, or rather of acts only criminal on Indian ground, are enumerated, and the expiations prescribed are, in general, long abstinence from food, swallowing the urine of a cow, prolonged suppression of the breath, sitting up to the neck in water, or some such singular punishment. For the greater offences, among other inflictions, we find mentioned the *ardent penance*, as it is rightly enough denominated, boiling milk or oil; hot clarified butter; hot steam, termed *paraca*; total fasts of dreadful length, twelve days and nights, if such fasts could ever be performed; the *lunar penance*, or *chandrayana*, in which only eight mouthfuls of undrest grain a day are allowed to be eaten, four in the morning and four at night, during a whole month. The wretched penitent, during all this time, must never suffer his wearied lids to close, nor his fainting feet to pause. As he ranges the desert forest, or stems the torrent wave, he must perpetually repeat the holy *Vedas*, keep all his organs in entire subjection, and ever keep his eye rivetted

on the ground. Never was superstition carried to such dreadful extremes; and what is thus sternly ordained has been known to be as rigidly executed, and is, in fact, at this day executing in India.

CHAP. XII.

On Transmigration and final Beatitude.

Such, as have been described, are the duties incumbent on the four great tribes: the ultimate reward, the radiant meed, of toiling virtue is now to be revealed. Making a distinction between the vital spirit and the intellectual soul in man, the code declares man accountable to YAMA, the Hindoo Pluto, for the minutest actions of his life and the most hidden movements of his heart. Though the present body be consumed to ashes on the funeral pile, yet it affirms that another body, composed of finer nerves and elements, in order to be susceptible of torment, shall certainly be assumed by that soul hereafter. Sensible of these migrations, therefore, says Menu, let each man continually fix his heart on virtue: the Metempsychosis, therefore, was invented to build up mankind in virtue and piety. The human soul is declared to be

invested with three distinct qualities, that of *goodness*, of *passion*, and of *darkness*. Between the former and the two latter of these there is a violent and perpetual stuggle, and, as either the one or the other proves victorious, the soul either mounts upwards on eagle pinions to the celestial regions, its native and sublime abode; or is depressed to PATALA, the infernal regions, and becomes the companion of monsters engendered in darkness and fiends that delight in blood. Similar to the passions to which they devoted themselves on this probationary scene, will be the animal into which, in a future birth, the migrating soul will descend. The form of the furious lion and tiger will receive the soul in which anger and revenge predominate. Unclean and ravenous birds are the allotted mansion of souls polluted with lust and blinded by ambition. Noxious and loathsome reptiles are the abode of those debased by grovelling and sordid passions. To some, vegetable and mineral substances are the prison assigned. Of others, sharks, crocodiles, and a variety of aquatic monsters, are the destined repository. The profoundest caverns of the ocean, and the bowels of the highest mountains, swarm with transmigrating existences.

The code afterwards expressly adds, that, in the same precise degree that vital souls,

addicted to sensuality, indulge themselves in forbidden pleasures, shall the acuteness of their senses be raised in their future bodies, that they may endure analagous pains. For the utterly abandoned, it mentions a place reserved of intense darkness; the *sword-leafed* forest, and other places of dreary exile, combined with multifarious tortures, await them: they shall be mangled by vultures and ravens; they shall swallow cakes boiling hot, alluding to the sacred cakes offered to the manes of their ancestors; shall walk over burning sands, and feel the parching flame as if baked in a furnace. They shall experience the alternate extremities of cold and heat, and be surrounded with unutterable horrors. All this shall they endure for innumerable ages, and then again begin their probationary career on earth.

After considering the Metempsychosis on the dark side of the portrait, in the descending scale, let us consider it in the ascending line.

The vital soul devoted to goodness and purity, that has passed the probationary terrestrial period in profound study of the Vedas, in practising severe austerities, in an entire command over the sensual organs; that has avoided all injuries to the brute creation, and has paid due reverence to parents; has insured to itself final beatitude. Some very sublime and noble

noble sentiments of the Deity succeed. A true knowledge of the ONE SUPREME GOD is declared to be the most exalted of sciences, for in that knowledge and in his adoration are comprised all the duties incumbent on man, on man, wandering in darkness and error, amid the nether spheres, but himself an emanation of the skies, a portion of the SUPREME SOUL, whence are diffused, like sparks from fire, innumerable vital spirits. Then follows this very elevated passage, which I shall give unabridged. "Equally perceiving the Supreme Soul in all beings, and all beings in the Supreme Soul, he sacrifices his own spirit by fixing it on the Spirit of God, and approaches the nature of that Sole Divinity who shines by his own effulgence." What great pity it is that a nation, who could think and write with such purity and sublimity on sacred subjects, should ever have debased their theology by extravagant allegories? but such is the genius of the Hindoos, and indeed of all the eastern nations, though the most frozen critic would scarely object to them, were they always as temperate as in the following instance. "As fire, with augmented force, burns up even humid trees, thus he, who well knows the Veda, burns out *the taint of sin* which has infected his soul." Having thus laboured to burn out the taint of

sin from his polluted soul, (but why these strong and repeated expressions concerning the deep and radical stain with which the soul is contaminated, if they did not believe in *original sin*, and *the fall of man?*) having rigidly performed all the prescribed duties of his cast, the soul of the virtuous Indian, in the future scenes of its existence, migrates through and among objects as transcendently beautiful and delightful as the depraved spirit performs its painful peregrinations through creatures deformed and disgusting. Its destined receptacles hereafter are the loveliest and most enchanting objects in the vast limits of nature, and in the still more extended field of fancy. Elysiums, such as poets never yet feigned, and paradises, such as inflamed enthusiasm, in its loftiest flight, never dared to conceive, await the beatified spirit. After bathing for ages in this abyss of joys, that it may be the better prepared for those of infinity, the pure spirit ascends the empyreum, and, in the first stage, joins the order of demi-gods, wafted in airy cars through the expanse of heaven, while the genii of the zodiacal signs and lunar mansions hail and embrace their delighted comrade. In the next stage, he mounts to the deities of the inferior heaven, and triumphantly joins the genii of the immortal *Vedas*, the re-

gents of stars, *not in the path of the sun and moon*, *i. e.* the most remote from human ken, blazing on the extreme verge of creation, the divinities that preside over the great cycles of time, and the superintendants of the vast universe. In the last stage, he exultingly passes the flaming bounds of time and space, and is received in the highest heaven of Brahma, *awful with four faces*, inshrined in light more refulgent than a thousand suns, eternally to participate of his glory and be absorbed in his essence.

THE END.

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